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BENDIRE'S THRASHER.

BY HERBERT BROWN.

BENDIRE'S THRASHER (*Harporhynchus bendirei*) differs materially from its cactus haunting kin. Beyond the structure and composition of the external nests they have but little in common. Its habitat in Arizona is confined largely to the central southern portions of the Territory. It seldom or never leaves the flat country for the rough and barren hills as do the *H. palmeri*. They are smaller, prettier, less common, migratory and strangely silent. At rare intervals, when disturbed from their nest, I have heard them *tirup, tirup, tirup* in a sort of reproachful disapproval of being molested, but it could be a delightful songster if it would. Once, and only once, I heard one in a grand outburst of song. I had to positively convince myself that I was not mistaken, and I was not. I then realized that if unsung melodies were sweet, this feathered grace would queen the plains.

During the winter months an occasional one can be found in their usual habitat, but, as a whole, they go south bodily on the first fall storm of wind or rain. The return migration is more gradual, but always of uncertain date. I have known the difference of a full month to exist in their homecoming in two succeeding years. This was probably due to climatic conditions further south. I infer this from the fact that the latest arrival of which I have record was made during an early spring in southern Arizona.

The first week in March will frequently find them nesting, and the middle of April preparations for a second brood are well under way, but, taken over a long series of years, the beginning of April generally sees them busy with their first house making. I have never been able to fully determine the exact number of families raised by one pair of birds during a season. Of two there can be no question, but a third is in doubt, although I have known the nesting season to last three full months and a half. To be more exact, February 24 is the earliest and July 18 the latest record I have in mind for one year. February 9 is the date of their earliest known arrival, but at that time they were gathered in small flocks and were not mated.

With rare exceptions four eggs are the maximum number laid. I have examined probably 500 nests, two only of which contained more. They had five eggs each. Four is not an unusual number, but three is a normal set. The 32 sets of which measurement and descriptions are given can be taken as showing the general average, although they were selected with a view to coloration and size irrespective of the number of eggs to the set.

To the late Major Charles E. Bendire I am indebted for the following measurements and description of the 101 specimens here enumerated.

No. in set, 4	1.11 x .78	1.08 x .78	1.07 x .76	1.08 x .77
" 3	1.10 x .73	1.05 x .73	1.06 x .75	
" 3	.98 x .74	.97 x .72	.97 x .72	
" 3	1.05 x .81	1.01 x .80	1.00 x .81	
" 3	1.01 x .77	1.05 x .78	1.04 x .78	
" 3	1.03 x .81	.99 x .82	1.05 x .82	
" 3	.95 x .73	1.00 x .73	.93 x .71	
" 3	.98 x .78	1.00 x .79	1.01 x .78	
" 3	1.03 x .78	1.02 x .78	1.03 x .78	
" 3	1.02 x .75	1.00 x .75	1.08 x .76	
" 3	1.13 x .77	1.11 x .77	1.11 x .78	
" 4	1.03 x .79	1.06 x .78	1.05 x .79	1.06 x .80
" 3	.99 x .72	1.01 x .73	1.02 x .73	
" 4	1.00 x .78	.99 x .77	.97 x .80	1.02 x .78
" 4	1.06 x .78	1.07 x .77	1.09 x .77	1.03 x .78
" 3	1.14 x .74	1.09 x .77	1.04 x .75	
" 3	1.03 x .80	1.00 x .83	1.05 x .80	
" 4	1.00 x .76	1.01 x .78	1.00 x .78	1.01 x .79

No. in set	3	1.13 x .76	1.10 x .77	1.06 x .78	
"	3	1.02 x .76	1.04 x .76	1.05 x .75	
"	2	1.05 x .75	1.03 x .74		
"	3	1.07 x .79	1.11 x .78	1.09 x .80	
"	3	1.12 x .78	1.12 x .77	1.05 x .78	
"	2	1.15 x .79	1.16 x .77		
"	3	1.03 x .77	1.07 x .78	1.02 x .76	
"	3	1.08 x .77	1.05 x .78	1.08 x .73	
"	3	1.10 x .81	1.10 x .83	1.10 x .81	
"	4	.90 x .75	.92 x .75	.97 x .75	.92 x .73
"	4	1.13 x .81	1.10 x .81	1.12 x .83	1.10 x .81
"	3	.96 x .74	1.04 x .77	.96 x .73	
"	2	1.20 x .80	1.17 x .79		
"	4	1.14 x .77	1.11 x .77	1.16 x .77	1.16 x .77

Average size of above 101 specimens, 1.05 x 0.75 inches. A further measurement of 47 additional specimens, making a total of 148, gave an average size of 1.03 x .75.

The ground color in the majority of the 148 specimens varies from a pale gray green to a greenish white, the former predominating. In a single set it is a clear pale green with a bluish tinge. Most of the eggs are irregularly spotted and blotched with well defined markings of tawny ecru drab, fawn color and vinaceous buff. These markings are generally heaviest about the larger end of the egg; in some specimens the spots run longitudinally. In this type about three fourths of the eggs examined can be included. They resemble, in the style of marking, the eggs of *Mimus polyglottos*, somewhat, although the eggs themselves look quite different. In about 20 per cent. the ground color is somewhat clouded over and partially obscured by the markings, which are finer, less pronounced, giving the egg a uniform pearl gray and pale greenish gray appearance till closely looked at. In an occasional specimen, the markings are simply fine pinpoints, as in the smaller spotted eggs of *Harporhynchus rufus*.

In about five per cent. of the eggs, the ground color is grayish or pinkish white with scarcely a trace of green, and the egg is heavily and uniformly spotted with longitudinal markings of pale salmon color and lavender, bearing a striking resemblance to some eggs of *Myiadestes townsendi*, excepting in size. A single egg has a distinct wreath about the larger end.

The shape of these eggs varies a great deal, the most common form being an elongate ovate, varying from this to ovate, short ovate and elliptical ovate.

The nest is small and daintily constructed by comparison with those of other thrashers. It is less compactly built than that of *H. palmeri*, but the manner of construction is common to all Arizona thrashers. There is an external nest of sticks, few or many, the nest proper of grass and lined with any soft material conveniently obtainable. I have measured at least 200 of them, of which the following may be taken as a fair sample. They are from my field notes and are largely without selection.

Nest in tasaja, 40 inches from the ground to the top of the nest. It has a light frame of sticks, the nest proper being made of green grass, lined with horse hair, rootlets and feathers. External diameter 6 inches, depth $3\frac{1}{2}$ inches. Inside, across the top, 3 inches, depth 3 inches, bottom ovate. This nest contained three eggs.

Nest in cholla, 36 inches from the top of the nest to the ground. But few twigs were used in its construction, the bulk of the material being dried grass. External diameter 6 inches, depth 5 inches. Inside, across the top, $3\frac{1}{2}$ inches, bottom 3 inches, depth $3\frac{1}{2}$ inches. It contained three eggs.

Nest in fork of tasaja, about 4 feet to the top of the nest from the ground. A few twigs on the outside, apparently to give strength, the nest proper being made of and lined with dried wire grass. External diameter, across the top, 6 inches, depth to point of fork $7\frac{3}{4}$ inches. Inside across the top, $3\frac{1}{2}$ inches, across the bottom $2\frac{3}{4}$ inches, average depth 2 inches, corners rounded. It contained four eggs.

Nest in cholla, $2\frac{1}{2}$ feet to the top of the nest from the ground. This nest is supported by an upright branch, against which no sticks have been placed, but they were built against the opposite side of the nest. The nest proper was made of dried grass and lined with a few feathers. Outside measurement, across the top, 7 inches, depth 5 inches. Inside, across the top, $3\frac{1}{2}$ inches, depth $2\frac{1}{4}$ inches, bottom ovate. This nest contained four eggs. They were very small and finely marked.

Nest on west side of a low bushy cholla, near the top. It is

built against a large arm of the bush from which the thorns have been broken off. The sticks, as usual in such cases, have been placed on the opposite side of the nest from the branch against which it has been built. Outside diameter 7 inches, depth $3\frac{1}{2}$ inches. Inside, across the top, $3\frac{3}{4}$ inches, across the bottom $2\frac{1}{2}$ inches. It contained four green eggs faintly blotched with brown.

Nest in tasaja, about 4 feet from the top to the ground. The external stick nest is unusually large. It extends above the grass, of which the inside nest is constructed, 4 inches on one side and $2\frac{3}{4}$ inches on the other, with a narrow opening on the south side through which the birds enter and leave the nest. Outside diameter $12 \times 8\frac{1}{2}$ inches, depth 11 inches. Inside, across the top of the grass nest, 3 inches, depth of same $1\frac{1}{2}$ inches. Eggs three, very small.

Nest in tasaja, $4\frac{1}{2}$ feet to the top of the nest from the ground. Nest placed under an arm of the bush near the top. Outside diameter, across the sticks, 10 inches, depth $6\frac{1}{2}$ inches. The stick nest reaches about 2 inches above the nest proper. The diameter across the top of inside nest is $3\frac{1}{2}$ inches, bottom 3 inches. Lined with grass, wool and fibrous bark. It contained two pinkish colored eggs.

Nest on north side of a slender tasaja, 3 feet 8 inches from the ground to the top of the nest. Outside nest is made of creosote and thorn twigs. Outside diameter is $7\frac{1}{2} \times 6$ inches, depth $5\frac{1}{2}$ inches. Inside, across the top, $3\frac{1}{2} \times 3\frac{1}{4}$ inches, and 3 inches deep. Bottom ovate. It contained four eggs. In shape and markings they had the appearance of being diminutive eggs of the Gambel Quail.

Nest in tasaja, about 30 inches from the ground to the top of the nest. Outside nest made of light thorn twigs, inside of grass and lined with rootlets and hair. Outside diameter $5\frac{1}{4}$ inches, depth 4 inches. Inside diameter across the top $3\frac{1}{2}$ inches, bottom drawn in and rounded to $2\frac{1}{2}$ inches, depth 2 inches. It contained four eggs.

Nest in tasaja, 22 inches from the ground to the top of the nest. Outside nest is made of sticks, inside of grass and lined with rootlets and feathers. Outside diameter $7 \times 5\frac{1}{2}$ inches. Inside nest, across the top, $2\frac{1}{4}$ inches, depth $1\frac{1}{2}$ inches. The bottom was thickly padded with fine grass. It contained two eggs.

Nest built on north side of a flowering tasaja, about 5 feet above the ground. It was placed on the top of an old nest. Outside diameter 7 inches, but drawn in to about 5 inches near the top, depth 9 inches. Inside, across the top, $3\frac{1}{2}$ inches, bottom 3 inches, depth $1\frac{3}{4}$ inches. It contained three eggs.

This nest is a flimsy concern. It is hung in the arms of a cholla about 4 feet from the ground. Outside measurement 7×5 inches. Inside, across top and bottom, $3\frac{1}{2}$ inches, depth $2\frac{1}{2}$ inches. Sides of the nest thin and open. It was sparsely lined with dry wire grass. It contained three eggs.

Nest in cholla about 50 inches from the ground. It was made of sticks, green weeds and grass, and lined with rootlets and feathers. The top diameter of the nest cavity is $3\frac{1}{4}$ inches, depth $1\frac{1}{2}$ inches, bottom oval. This nest contained three eggs and is curiously constructed.

Nest in cholla, about 5 feet to the top of the nest, from the ground. It is made of sticks, lined with grass, grass roots and feathers. Outside diameter 6 inches, depth 4 inches. Inside diameter, across the top, 3 inches, depth $1\frac{1}{2}$ inches, sides straight, bottom flat. It contained 3 eggs, large and coarsely marked.

Nest in mesquite tree, about 12 feet from the ground. It is made of sticks lined with grass and the inside bark of dead cactus. The outside measurement across the top is 7 inches, depth 5 inches. Inside measurement, across the top of cavity, $3\frac{1}{2}$ inches, bottom $3\frac{1}{4}$ inches, depth 2 inches. This nest was remarkable from the fact that it contained 5 eggs.

Nest in tasaja, 40 inches from the ground to the top of the nest. The external nest of sticks measured 11×7 inches, depth 6 inches, across the top of the cavity $3\frac{3}{4} \times 3\frac{1}{4}$, across the bottom 3 inches, lined with dead grass, weeds, horsehair and wool. It contained 4 eggs.

Nest in tasaja, about 40 inches to the top of the nest from the ground. Nest made of dead twigs and lined entirely with shredded rope. Outside diameter $6\frac{1}{2}$ inches, depth 4 inches. Inside diameter across the top of cavity $3\frac{1}{2}$ inches, across the bottom 2 inches, depth $2\frac{1}{4}$ inches. This nest contained 3 eggs.

The foregoing will give a fair idea of the size and character of the nests. It will be observed that the larger portion of the nests

are in tasajas. This is a species of cactus for which, for the want of a better name, I am obliged to use that of the Mexicans. The word means "dry or jerked beef" which in color and shape the tasaja somewhat resembles. The spines, although innumerable, are short and the branches spreading and open. The cholla is the characteristic cactus of the desert. It is a mass of barbed spines and is the favorite nesting place of *H. palmeri*, but not of *H. bendirei*. Taking 50 nests in succession 34 of them were placed in tasajas, 11 in chollas, 3 in tesota bushes, 1 in a mesquite tree and one in a willow tree. These results are from the Fort Lowell district. In other sections of country less characteristic of the cacti I have found them largely inclined to tree nesting, but never at any great height from the ground. This was Capt. Bendire's experience also. The highest I ever saw one placed was in a willow about 20 feet up. I also saw one in a tasaja the bottom of which was not more than 6 inches from the ground.

BIRDS OF THE BLACK HILLS.

BY MERRITT CARY.

For several years it had been my desire to take a trip to the western part of the Black Hills—especially to that portion which is bounded on the east by the Timber Reserve, and slopes off gradually to the west and southwest until it merges into the arid sagebrush plains of central Wyoming. In selecting this field I hoped to meet with two distinct faunas, and to be as nearly as possible on the dividing line between the two faunal regions.

Accordingly, the 29th of May, 1899, found me very pleasantly situated at the ranch of an old friend, fourteen miles southeast of Newcastle, Wyo., in a branch of the beautiful Gillette Cañon. The scenery here is picturesque in the extreme, the hills to the eastward being within the Reserve, and clothed with heavy forests of pine; while to the westward the foothills are almost devoid of timber, but covered with a heavy growth of 'wait-a-bit' brush, the uniform greenish-gray color of which contrasts strongly with the red sandstone rocks. To the southwest the Elk Mountain

range is seen as a succession of ridges, finally culminating in Elk Mountain, which raises its huge mass to an elevation of some fifty-seven hundred feet.

It was in this ideal situation that I spent the first half of June, both in 1899 and 1900, in studying and collecting the fauna and flora of the region. Unfortunately, however, the season was too backward in 1899 for any egg collecting. The majority of the birds were just commencing to build nests when I left, on the 11th of June.

Before going to Newcastle in 1899, I had stopped over a day at Hot Springs and Edgemont, S. Dak., respectively, and in the list I give the birds observed at all three localities, with brief notes as to their habits, distribution, etc.

The season was much earlier in 1900, and the nesting season was at its height in the early part of June. On this account my notes for 1900, concerning the habits of certain species, are much more copious than those for 1899. A goodly number of species not noted in 1899 were abundant in 1900.

In the following list localities are mentioned only in connection with species observed at Hot Springs and Edgemont, S. Dak. The reference in all other cases is to the immediate vicinity of Campbell's Ranch, fourteen miles southeast of Newcastle.

1. *Querquedula discors*. BLUE-WINGED TEAL.—Several pairs seen on a creek south of Buffalo Gap, S. Dak., where they were doubtless breeding.
2. *Numenius longirostris*. LONG-BILLED CURLEW.—Frequently seen on the tablelands, where they breed.
3. *Ægialitis vocifera*. KILLDEER.—On plowed fields, in Gillette Cañon.
4. *Dendragapus obscurus*. DUSKY GROUSE.—The ranchmen informed me that when hunting in the higher portions of the hills they frequently shot these grouse.
5. *Pediocetes phasianellus campestris*. PRAIRIE SHARP-TAILED GROUSE.—I noted but two specimens, one in 1899 and one in 1900.
6. *Centrocercus urophasianus*. SAGE GROUSE.—Very common in the sage brush, both in the foot-hills and on the plains.
7. *Zenaidura macroura*. MOURNING DOVE.—In 1899 I did not once see it within the Hills, but the birds were abundant along the Elkhorn R. R. south of Buffalo Gap, S. Dak. In 1900 doves were frequently seen at the ranch.
8. *Cathartes aura*. TURKEY VULTURE.—Frequently seen and doubtless breeds.

9. *Accipiter velox*. SHARP-SHINNED HAWK.—Said to be abundant, and very destructive to poultry in fall, winter and spring. I found a nest in one of the cañons back of the ranch on June 8, 1899, which contained two fresh eggs. The parent birds were shy, but frequently uttered their alarm notes. The nest was typical of the species, about thirty feet up in a pine. Before leaving the nesting-site I secured both of the old birds. Upon visiting the nest again on June 11, 1900, I found it to be occupied by another pair, and took a fresh set of five eggs.

10. *Buteo borealis*. RED-TAILED HAWK.—Seen but once, on June 5, 1900.

11. *Buteo borealis kriderii*. KRIDER'S RED-TAIL.—I saw but three of these hawks, one in 1899 and two in 1900.

12. *Buteo swainsoni*. SWAINSON'S HAWK.—By far the most abundant of the larger hawks. A common breeder in the timber along the Cheyenne River, as it is along the smaller streams.

13. *Aquila chrysaëtos*. GOLDEN EAGLE.—Fairly common throughout the region. I saw several old nests in the most inaccessible places on the cañon walls, and a ranchman told me of a pair that were then (June 8, 1899) nesting near the ranch, thirty miles southeast of Newcastle, but I did not have time to visit the nest.

14. *Falco sparverius*. AMERICAN SPARROW HAWK.—Common breeder throughout the region. Exceeds all the other hawks in point of numbers. Nesting appeared to be just commencing on June 9, 1900.

15. *Asio wilsonianus*. AMERICAN LONG-EARED OWL.—A pair of these owls had a nest about thirty feet up in a large pine in one of the cañons, and when I visited the site, on June 3, 1900, the nest contained young birds.

16. *Nyctala acadica*. SAW-WHET OWL. On June 11, 1900, while walking down the rocky bed of a deep cañon, three of these little owls flushed from the thick top of a small cedar, where they had been taking their noonday siesta, and alighted farther down the cañon. I secured one of them, which proved to be an immature bird, with the breast and belly of a deep fawn color.

17. *Megascops asio maxwelliæ*. ROCKY MOUNTAIN SCREECH OWL.—I saw a Screech Owl in the heavy timber which was probably of this variety.

18. *Bubo virginianus*. GREAT HORNED OWL.—Two young were killed near Soper's Ranch, thirty miles southeast of Newcastle, on June 13, 1900.

19. *Speotyto cunicularia hypogæa*. BURROWING OWL.—Common in prairie dog towns.

20. *Ceryle alcyon*. BELTED KINGFISHER.—Sweet's Ranch, six miles southeast of Newcastle — one individual on the sawmill pond.

21. *Dryobates villosus hyloscopus*. CABANIS'S WOODPECKER.—Frequently seen in the cañons.

22. *Dryobates pubescens medianus*. — DOWNY WOODPECKER. — In same situations as last.

23. *Picoides arcticus*. ARCTIC THREE-TOED WOODPECKER.— But two examples of this species were seen, one on June 2, 1899, and the other, which I secured, on June 11, 1900. This latter bird, an adult male, had the feathers of its under parts matted together with pitch which it had rubbed from the pine trunks. Both birds were seen in the heavy timber, and it is quite probable that the species breeds in the hills.

24. *Melanerpes erythrocephalus*. RED-HEADED WOODPECKER.— The most abundant woodpecker in the Hills.

25. *Melanerpes torquatus*. LEWIS'S WOODPECKER.— This fine woodpecker is common in the Hills, and is partial to the burnt timber on the sides of cañons. They are frequently seen to launch into the air from a dead stub in such a situation, and, after a few aerial evolutions, to return to their former perch. Whether or not the woodpecker is catching an insect at such times I am unable to state, but it is my firm belief that such is the case. I have found Lewis's Woodpecker at all times to be an extremely wary bird, and very difficult of approach.

26. *Colaptes auratus luteus*. NORTHERN FLICKER.— Fairly common. I found a nest containing nine fresh eggs on June 4, 1899.

27. *Colaptes cafer*. RED-SHAFTED FLICKER.— Common throughout the Hills.

28. *Phalænoptilus nuttallii*. POOR-WILL.— The monotonous notes of these birds were heard every night at the ranch.

29. *Chordeiles virginianus henryi*. WESTERN NIGHTHAWK.— It is quite probable that the nighthawks observed were of this variety. Ranchmen informed me that eggs were often found in July.

30. *Aeronautes melanoleucus*. WHITE-THROATED SWIFT.— Abundant, both at Hot Springs and Newcastle, where they were breeding in June in the most inaccessible cracks and crevices on the face of sandstone cliffs. The ranchmen have styled these birds 'twitter-titters' and 'nightflyers.'

31. *Selasphorus platycercus*. BROAD-TAILED HUMMINGBIRD.— Two hummingbirds were seen at the ranch in the latter part of May, 1900, and as a very accurate description of the birds was given me I have no hesitancy in listing the species.

32. *Tyrannus tyrannus*. KINGBIRD.— Fairly common along Beaver Creek, seven miles from Newcastle, where the trees are mostly boxelders.

33. *Tyrannus verticalis*. ARKANSAS KINGBIRD.— Frequently seen at Hot Springs, where it spends much of its time perched upon telephone wires.

34. *Sayornis phœbe*. PHŒBE.— Noted but once, on Beaver Creek.

35. *Sayornis saya*. SAY'S PHŒBE.— This interesting flycatcher is quite common in the cañons where its sweet but somewhat melancholy notes may be heard at all hours of the day. The favorite perch of this bird is a boulder in the bottom of a cañon, from which it darts forth every few moments to capture a passing insect. While in the air the

black tail is very prominent. But one nest was found, containing two eggs, on June 11, 1899, which was situated on a small ledge in a recess of the cañon wall. This nest, which was composed almost entirely of moss, was remarkably shallow, the center being not more than two thirds of an inch lower than the edges.

36. *Contopus richardsonii*. WESTERN WOOD PEWEE.—Frequently seen, but no nests were found. The monotonous *pē-a-wee* of this bird was heard almost every morning and evening during my stay in 1900. The species frequents the heavy timber in the cañons.

37. *Empidonax traillii*. TRAILL'S FLYCATCHER.—Partial to the 'wait-a-bit' brush in the rocky heads of cañons. Here this sly little flycatcher is frequently seen catching insects around the rim-rock on a hot day, uttering at short intervals its sharp *ke-wick, ke-wick*.

38. *Empidonax virescens*. ACADIAN FLYCATCHER.—I took an adult male on Pine Ridge, Sioux County, Neb., about fifteen miles from the northwestern corner of the state, on May 26, 1900. The species is probably occasionally found within the Hills.

39. *Empidonax minimus*. LEAST FLYCATCHER.—A common breeder in chokecherry thickets in the cañons. The nests were very thick-walled and compact, averaging four inches in height, and two and a half inches inside diameter. The nesting material used was coarse grass and weed-leaves; the lining of fine grass, horse hair, fibers and plant down. An incomplete set of two pure white eggs was taken on June 15 from a nest in Hop Cañon.

40. *Otocoris alpestris arenicola*. DESERT HORNED LARK.—Occasionally seen on the tablelands.

41. *Pica pica hudsonica*. AMERICAN MAGPIE.—Plenty of old nests were seen in 1899, but although common before my arrival, I did not see one during my stay of two weeks in 1900.

42. *Perisoreus canadensis capitalis*. ROCKY MOUNTAIN JAY.—A common bird in the higher parts of the Hills, especially so in the Reserve. The deer hunters claim they can nearly always locate a deer by a certain note which this jay utters, greatly resembling the words 'Here-it-is,' 'Here-it-is.' I myself did not hear this note, but it is quite probable that the birds are noisier than usual when a deer is near, just as is the case with crows when a flock of ducks is feeding near them. Troops of fully grown young of this species were seen on June 12, 1899, and June 12 and 13, 1900.

43. *Corvus americanus*. AMERICAN CROW.—A small flock at L. A. K. Ranch, on Beaver Creek, in 1900.

44. *Nucifraga columbiana*. CLARKE'S NUTCRACKER.—Two of these noisy birds were seen on Elk Mountain at an elevation of 5500 feet, on June 9, 1899, in company with a troop of Rocky Mountain Jays. Their notes are very harsh and discordant, something like *k-rrr-aw*.

45. *Cyanocephalus cyanocephalus*. PIÑON JAY.—This bird is universally disliked by ranchmen on account of the damage it does to growing

crops, and large numbers are killed and poisoned. It is very difficult to get within gunshot of these jays in summer, but I was told that in cold weather, when driven to the ranches by hunger, they become very bold, even entering the kitchen of the ranch house in quest of food. When ravaging the crops Piñon Jays go about in immense flocks, and always keep sentinels posted to warn them of impending danger. Fully grown young birds were common on June 4. Piñon Jays are partial to the foothills, and are seldom seen back in the heavy timber.

46. *Agelaius phœniceus*. RED-WINGED BLACKBIRD.—A few seen near Hot Springs.

47. *Sturnella magna neglecta*. WESTERN MEADOWLARK.—Abundant at Hot Springs, Edgemont and Newcastle—breeds.

48. *Icterus galbula*. BALTIMORE ORIOLE.—Breeding at Edgemont.

49. *Icterus bullocki*. BULLOCK'S ORIOLE.—Common at Edgemont, where it breeds.

50. *Scolecophagus cyanocephalus*. BREWER'S BLACKBIRD.—Usually seen in the vicinity of springs.

51. *Quiscalus quiscula æneus*. BRONZED GRACKLE.—Occasional.

52. *Pinicola enucleator canadensis*. PINE GROSBEAK.—Hot Springs, May 28, 1899; Newcastle, June 8, 1900.

53. *Loxia curvirostra minor*. AMERICAN CROSSBILL.—Both at Hot Springs and Newcastle, in the latter locality around springs. Did not appear to be breeding.

54. *Loxia curvirostra stricklandi*. MEXICAN CROSSBILL.—Am quite certain that I saw two of these birds at Hot Springs, as I was very close to them at the time.

55. *Astragalinus tristis*. AMERICAN GOLDFINCH.—Common around creeks and springs.

56. *Spinus pinus*. PINE SISKIN.—Seen but once or twice. Its presence in June would indicate that it breeds within the Hills.

57. *Poœetes gramineus confinis*. WESTERN VESPER SPARROW.—A Vesper Sparrow was seen, and was probably of this variety.

58. *Chondestes grammacus strigatus*. WESTERN LARK SPARROW.—A common breeder. A nest containing five slightly incubated eggs was found on June 14, 1900. The nest was on the ground, and composed of coarse grass, the lining being of finer grass and horsehair. Eggs similar to those of *C. grammacus*.

59. *Spizella socialis*. CHIPPING SPARROW.—Abundant throughout the region, and breeds. Fresh sets were found from June 3 to 14, 1900. The nest is usually in small pines and cedars in the cañons.

60. *Spizella pallida*. CLAY-COLORED SPARROW.—Several seen at Hot Springs.

61. *Junco aikeni*. WHITE-WINGED JUNCO.—Common about the ranch. Several families of young birds seen on June 11, 1900.

62. *Pipilo erythrophthalmus*. TOWHEE.—Once at Hot Springs, in 1899.

63. *Pipilo maculatus arcticus*. ARCTIC TOWHEE.—Abundant, and breeds. Two nests were found, the first on June 3, 1900, containing four fresh eggs; the second, on June 13, containing four young. Both nests were on the sloping side of a cañon, about six feet from the bottom, beside small rocks. They were composed of pine needles and lined with fine grass.

64. *Zamelodia melanocephala*. BLACK-HEADED GROSBEAK.—Breeding at Edgemont.

65. *Passerina amoena*. LAZULI BUNTING.—Several seen at Sweet's Ranch, where the species doubtless breeds.

66. *Calamospiza melanocorys*. LARK BUNTING.—Common south of Hot Springs, and along the B. & M. R. R. from Edgemont to Newcastle.

67. *Piranga ludoviciana*. LOUISIANA TANAGER.—Very common at the ranch in 1899. Numbers of these tanagers were seen feeding on the maggots in an old carcass, in company with Robins, White-winged Juncos, Chipping Sparrows and Audubon's Warblers. Scarcely two male tanagers were alike in regard to the coloration of the head, some having the crown, occiput, lores and auriculars a very deep crimson-red, while in others, doubtless young males, these parts were merely tinged with orange-red. In 1900 tanagers were not common until June 15.

68. *Petrochelidon lunifrons*. CLIFF SWALLOW.—Breeding abundantly at Hot Springs.

69. *Hirundo erythrogastra*. BARN SWALLOW.—Common breeder under the sheds at the ranch.

70. *Tachycineta bicolor*. TREE SWALLOW.—Abundant. These swallows were carrying away feathers from the barn-yard on June 10, and were probably commencing nest-building at that time.

71. *Lanius ludovicianus excubitorides*. WHITE-RUMPED SHRIKE.—Seen but once.

72. *Vireo olivaceus*. RED-EYED VIREO.—Common at Hot Springs, Edgemont and Newcastle.

73. *Vireo gilvus swainsoni*. WESTERN WARBLING VIREO.—Fairly common and breeds. Two nests which I examined on June 15, 1900, were each situated in upright crotches of chokecherry trees, four or five feet from the ground. Each nest was neatly constructed of coarse grass and fibers, and lined with fine grass and hair. A full set of four fresh eggs was secured from each nest.

74. *Vireo solitarius plumbeus*. PLUMBEOUS VIREO.—Frequently seen, but very shy.

75. *Dendroica aestiva*. YELLOW WARBLER.—Common at Hot Springs and Edgemont; also seen on Beaver Creek.

76. *Dendroica auduboni*. AUDUBON'S WARBLER.—Abundant at Hot Springs and Newcastle, where its sprightly notes were almost continually heard. This warbler was just commencing nest building on June 15, 1900, boldly coming to the dooryard in search of material.

77. *Geothlypis tolmiei*. MACGILLIVRAY'S WARBLER.—Fairly common in the berry thickets in the cañons, where it doubtless breeds.

78. *Geothlypis trichas occidentalis*. WESTERN YELLOW-THROAT.—Abundant in the brush along Beaver Creek.

79. *Icteria virens longicauda*. LONG-TAILED CHAT.—Usually found in the shrubbery at the bottom of small cañons.

80. *Setophaga ruticilla*. AMERICAN REDSTART.—Fall River Cañon, near Hot Springs.

81. *Galeoscoptes carolinensis*. CATBIRD.—Seen but a few times on Beaver Creek.

82. *Harporhynchus rufus*. BROWN THRASHER.—Breeding on Beaver Creek.

83. *Salpinctes obsoletus*. ROCK WREN.—The lively notes of this species were frequently heard around the rim rock.

84. *Troglodytes aëdon aztecus*. WESTERN HOUSE WREN.—Breeding both at Hot Springs and Newcastle.

85. *Sitta carolinensis aculeata*. SLENDER-BILLED NUTHATCH.—Frequently seen in the heavy timber.

86. *Sitta canadensis*. RED-BREASTED NUTHATCH.—One on Elk Mountain on June 8, 1899, and probably breeds there.

87. *Parus atricapillus septentrionalis*. LONG-TAILED CHICKADEE.—Rather common.

88. *Myadestes townsendii*. TOWNSEND'S SOLITAIRE.—I saw one of these birds at Horseshoe Bend, in the Timber Reserve.

89. *Hylocichla ustulata swainsoni*. OLIVE-BACKED THRUSH.—Hot Springs, May 28, 1899. Several seen.

90. *Merula migratoria*. AMERICAN ROBIN.—Breeding abundantly at Hot Springs, Edgemont and Newcastle.

91. *Sialia arctica*. MOUNTAIN BLUEBIRD.—Common at Hot Springs and Newcastle, breeding at the latter place in dead pines, from four to thirty feet above the ground. One nest was found in the barn at the ranch, and contained five highly incubated eggs, on June 4, 1899.

UNPUBLISHED LETTERS OF WILLIAM MACGILL-
LIVRAY TO JOHN JAMES AUDUBON.

BY RUTHVEN DEANE.

THE publication of the letters of ornithologists of fame has met with much favor of late, and we cannot add to the list any of more real value and interest, than those of William MacGillivray, whose reputation as an ornithologist and a teacher of natural history, has always been valued so highly. I am under great obligations to Miss M. R. Audubon, in whose possession the original letters are, for the privilege of presenting them here.

It has been known for several years that Audubon had selected MacGillivray to assist him in the technical part of his 'Birds of America,' and these letters are therefore of peculiar interest, as they treat principally upon the progress of its publication and show the high regard in which he held his friend Audubon. It is a very fitting time to publish these letters, for only a few months ago a mural tablet to the memory of William MacGillivray was unveiled at Marischal College, Aberdeen, Scotland, where he was Professor of Natural History and Lecturer on Botany from 1841 to 1852, and where a tombstone was erected at his grave. A reference to the 'In Memoriam' published on that occasion, will be found in this number of 'The Auk.'

During the past few years I have made very careful search for a likeness of MacGillivray, but have not met with success. My correspondent, the Rev. Dr. James Farquharson, of Edinburgh, who was a student under MacGillivray, writes me that the only likeness which exists is a small water-color which he had taken of himself a short time before his death, but unfortunately this fails to convey an idea of the man, and to present it as the likeness of MacGillivray would be utterly misleading.

No. 1.

Edinburgh, 22 Warriston Crescent
7th May, 1831

Dear Sir,

I received your letter of the 30th ulto. in due time. Agreeably to your desire I called upon Mr. Neill, but did not find him, and so went to Prof. Jameson who informed me that the election of your friends had not yet taken place, but would be proposed at next meeting. I also called at Mr. Kidd's, but did not find him. With respect to the review, I can only say that if Mr. Lockhart is so doubtful as to my powers, he may doubt as long as he lists. I shall not submit any essay of mine to his judgment. If you had informed me that he or the conductor of my other review would print a notice of your works, I should have agreed to write one with pleasure, but under existing circumstances I shall not, it being repugnant to my feelings and contrary to my practice and principles to sue for favor with any man. I have already written three reviews of your books which have been printed, and when I am applied to for a fourth I shall write it too, with "an elegance of style, a power of expression, and knowledge of the subject" equal to those usually displayed by the editor of the Quarterly.

I have settled with Mr. Boyd about the volume which I am to write for him. Prof. Jamieson sent a flaming eulogy of my translation of Richard W. Blackwood, and wishes me to undertake the translation of a Latin work on Zoology, for the use of his class; nothing that has happened to me for ten years has surprised me more than his having said to you that I did not deserve to be mentioned in your book. I have been collecting birds for description, and looking over my old manuscript, and before you return I expect to have my views on the classification of objects of Natural History published, and perhaps a synopsis of British Quadrupeds and Birds. My translation of Richard has been recommended by Prof. Jameson to his pupils, adopted by Dr. Graham as his text book, and praised, as I am informed, in the newspapers. They say Wilson has said nothing of your biography in the last number of the magazine, which, however, I have not seen, and I am in-

formed his brother means to mention your works in his review only in a brief manner. You will see that Mr Cheek has given a number of extracts besides the short review. There has been a good deal of excitement here on account of the election. Mrs Mac Gillivray and the children are in good health. I am just about to commence a series of desperate jobs which will occupy me till winter. As I understood your proposals respecting the Birds of Britain to have ended in nothing, and as you do not allude to the subject, I shall suppose all our ideas to have dispersed, and shall think of the matter myself. At the same time I do not think large and expensive works commendable, as they are beyond the reach of those who are most deserving, and most likely to profit by the inspection of them — the *poor* enthusiasts. One person asked me who had written the review, and I told him I was not at liberty to say who wrote it; another told me he knew the moment he saw it who had written it, and a third said directly that I had written it. I told my brother about the Golden Eagle, but I know it will be extremely difficult for him to get one, as he resides on an island where there are few aquiline visitors.

Since writing the above, I have called again at Kidd's but did not find him. His landlady however informed me that she did not think he had any intention of going to London.

With respectful compliments to Mrs Audubon and sincere thanks for your and her kindness, and best regards from Mrs Mac Gillivray,

I remain, Dear Sir, yours truly

W. MacGillivray

No. 2.

Edinburgh, 11 Gilmore Place
16th June, 1834

Dear Sir

I received your letter yesterday and have the pleasure of answering it. If you send me twenty or twenty-five articles, I can revise them without the books to which you refer, and without your own presence, provided your descriptions be full, and

the drawings or plates sent to me. The skins and books might be consulted afterward, when we might go over the articles in company. Should you come here for the purpose, it would not, I believe, be necessary for you to stay more than three weeks or so. On the other hand I might possibly save you the trouble, by going to London, or I might go there for some weeks during the printing; but of this we can speak afterward. To be methodical I should like twenty-five birds, that is description of birds, by your first parcel; but I cannot state precisely at what time they might be revised, only I think were you to send them, you might make a trip to France and be back before I should be done. With respect to printing it seems to me very doubtful that you can get it done in London better or cheaper than here. The best way is to get estimates. If the work were post 8vo., I imagine it would sell much more extensively, but I suppose you have determined to continue it of the same size. You ask about lodgings here. Two doors from me there are good accommodations; but I am sorry, that my own nest which is in a garden, among pear-trees, is rather small. I am sorry that you have resolved to reside in London, that ugly forest of brick buildings swarming with vermin of all genera, species, and varieties, and should like much to see you, that you might condemn one half of my drawings and approve of the rest. I do not think there is anything else in your letter to be answered.

I can begin to revise immediately.

Send, if convenient, 25 articles.

Books are not necessary at present; or if any be, mention them and I can get them here.

Skins are not necessary either.

Please say when you wish the business done.

Address for security, parcels or packages to W. MacGillivray Conservator of the Museum, College of Surgeons, Nicholson Street, Edinburgh; letters, to 11 Gilmore Place, Ed.

Please offer my best regards to Mrs Audubon.

I have the honor to be, Dear Sir

Your obedient servant

W. MacGillivray

No. 3.

Edinburgh, 11 Gilmore Place

18th July, 1834.

Dear Sir

I received from Mr. Neill yours of the 9th along with a parcel of 25 descriptions of birds, and now report progress. I commenced my operations on the 1st of July, and have transcribed and corrected eighteen articles, one *for* each day, but not one *on* each, the work of Sunday being transferred to Monday. This volume will certainly be much richer and more interesting. It will also be larger. You wish to know my opinion as to the improvement of your style. It seems to me to be much the same as before, but the information which you give is more diversified & more satisfactory.

Your first volume is only beginning to be known. Chambers has reprinted many of the sketches, and Hunt has one in a late number. Had it been of the post 8vo size, in two volumes it would have gone off in style; but your imperial size and regal price do not answer for radicals, or republicans either. Could you *sacrifice* the first volume, reprint it of a small size and continue the series so to the end? In suggesting this, I firmly believe that my only object is to let the book have fair play. Lizars has sold five or six thousand copies of some of his ill-written compilations; and if you were to issue yours in a similar style—not of writing but of printing—with 20 wood cuts or engravings in each volume, I am certain it would spread over the land like a flock of migratory pigeons. Even without the embellishments it would fly, but were you to give it those additional wings, it would sweep along in beautiful curves, like the night-hawk or the purplebreasted swallow.

I have often thought that your stories would sell very well by themselves, and I am sure that with your celebrity, knowledge and enthusiasm, you have it in your power to become more *popular* than your glorious pictures can make you of themselves, they being too aristocratic and exclusive. Excuse me for putting down my thoughts just as they occur, and for wandering from my subject, which was the progress of the manuscript.

Be assured I shall get on as quickly as possible, because I am anxious to do so for your sake, and find great pleasure in reading your descriptions. At the present moment however I cannot venture to fix a period, and you have not requested me to do so.

Four months ago I heard from a naturalist for the first time that you had been attacked in a London journal, which afforded me an explanation of an expression used by you in your letter from Charleston. He promised to look out the numbers for me but I have not yet seen them. Perhaps the best place for your answer would be the preface to your second volume.

I have the honor to be, Dear Sir

Your obedient servant

W. MacGillivray

No. 4.

Edinburgh, 11 Gilmore Place
Monday, 28th July, 1834.

Dear Sir

Yours of the 24th, I received on the evening of the 26th. That evening I called on Mr. Kidd, & did not find him at home. Today however, I succeeded, but he informed me that he could not deliver the drawings as they were yet unfinished. The paper on the Goshawk, which you say you wrote for Sir Wm. Jardine, I never heard of before, and if it be the one to which you refer in your last letter, as in a box or a sealed parcel, I have it not. You left nothing of any kind with me excepting the skins of 2 birds, and a stuffed Gannet. You ask when the printing may commence, but the question cannot be answered by me. If you had sent the articles in order from 1 to 50, with the corresponding number of tales and descriptions of scenery, the printing might have been commenced tomorrow, and gone on straight to the end without any impediment. I have finished looking over 25 of your articles, and tonight commence the next parcel, which will, I expect, be done on the 20th of August; in the next parcel I wish you would send those of the first 50 that have not yet come, along with as many more as will make up the 25. If you think of publishing in small size, and reprinting the first volume of the same, the second

volume might still come out first, or both might come out together, in which case the first might be improved and perhaps enlarged. Can you inform me where Mr. Gould has described a Wagtail formerly confounded with the Yellow Wagtail, and which I am informed he has named *moracilla neglecta*? I have found the bird here in abundance in some meadows near the town, and thought at first that I had discovered a new species. It is, like the Grey Wagtail, a most elegant bird, but it has a conical elongated bill, and a long slightly arched hind claw. Now that your American birds are completed I suppose you will have at the European or the British. In the latter case what will become of mine? However, I have resolved, God willing, to go through with my task. I have at least 20 drawings superior to anything in the way ever seen by me, excepting always "The Birds of America," and so good that one might look at them without disgust even after seeing yours. With best respects to Mrs. Audubon,

I have the honor to be, dear Sir,

Your obedient servant

W. MacGillivray.

No. 5.

Edinburgh. 11 Gilmore Place
19th August 1834

Dear Sir

I regret that I have caused you so much uneasiness. Your letter of the 5th August, accompanied by a parcel of descriptions of birds came duly to hand, as did your subsequent letter, but I have been out of town on urgent business and only returned late last night. I have seen Mr. Kidd twice today, and informed him of your wishes.

The College of Surgeons are so urgent with me to have the Catalogue of their Museum printed by the 1st of November that it will be quite impossible for me to go to London before December, because after the catalogue is done, the registration of students which occupies three weeks commences. If it be really necessary that we should meet, I apprehend under these circumstances that you will be obliged to come north, which perhaps

will not be extremely inconvenient, as you say you must be in Manchester. I really wish that I could go to London, and so save you the trouble of coming down, and give myself the pleasure of a little relaxation from my labors; but I have no prospect of being able to do so as I have said, till December. On the other hand it would be expedient that you should determine as to the mode of printing, because I think the technical description of the birds might be rendered more readable were you to reprint the first volume—that is less *formal*, and as to the Biography—I mean your own—if you honor me with the revisal of it, it would be well that we should converse on the subject. I will endeavor to see Mr. Kidd in a day or two.

I have the honor to be, dear Sir,

Your obedient servant

Wm. MacGillivray

No. 6.

Edinburgh 11 Gilmore Place

Tuesday, July 1836

My dear Friend

Your letter, which I received on Saturday evening, afforded me very great pleasure. I have been thinking of you ever since, but have scarcely had time to write until this moment, when I have just arrived from Leith, where I have been delivering a Botanical lecture. I have two lectures there weekly, one at the Young Ladies' Institution, and an excursion on Saturday from twelve till eight. The composition of these lectures, and the drawings necessary for illustrating them, occupy nearly the whole of my time at present, but they will all be over before the end of the month. I have done very little otherwise since I saw you, although I have been generally, in very good health. Craigie's death had a strong effect upon me, and I believe my views of life and its occupations have been a good deal changed by it. It was upon him especially that I had set my hopes. However I am reconciled to my condition. The girls have ever since been particularly anxious to do what they could to assist or please me. My drawings of birds have been stationary for some

time past. I have no one now that you are away, to show them to, or to stimulate me to go on with them. I shall long for your return, but the thought that you will be here several years will, I am assured, keep up my spirits. It gives me the greatest pleasure to be informed by you that I shall hear occasionally from you when on your perambulations, and I hope I shall have resolution and gratitude enough to enable me to write regularly in return. I have not yet been able to see the Wilsons, John and Jemmy, but I will endeavor to do so soon. The memorandums which you desire with reference to collections to be made, I cannot send now, but when I write in a few days, I shall say something on the subject, although I am not aware that I have anything to communicate respecting which you are ignorant. The great object is to have specimens of all the birds in spirits, as well as skins. You desire to know how I am "going on with the world." The world and I are not exactly as good friends as you and I, and I am not particularly desirous of being on familiar terms with it. I have got rather into difficulties this year, but I do not exactly know the state of my affairs, and must take a few days among the hills by myself before I can understand how I am situated. I cannot write more at present. Present my best regards to Mrs. Audubon and the young gentlemen and accept for yourself and them the best wishes of Mrs. MacGillivray.

I remain, Dear Sir, your sincere friend and obedient servant
Wm. MacGillivray

No. 7.

Edinburgh, 16 Minto Street,
Newington
4th November 1836

Dear Madam.

At the same moment that Mrs. MacGillivray received your very welcome letter of the 27th ulto. I received one not less welcome from Mr. Audubon, dated New York Oct. 8th. Although you are of course aware of his plans, and it is therefore unnecessary for me to transcribe his letter, I may yet present an epitome of its contents, in case there may be something new to you. He mentions

having got twelve subscribers, two at Salem, four at Boston, and six at New York. At the Ac. of Nat. Sciences at Philadelphia he saw the collections of Messrs. Nuttall and Townsend, and ascertained that they had procured forty new species of birds. Mr. Nuttall afterward presented him with six other species. The birds in spirits for the new edition are upwards of 200, besides 20 large jars, which Mr. Bachman has filled. They intended to remain at Phila. and at Great Egg Harbor some days, and then proceed to Charleston, whence, accompanied by Mr. Harris, they were to search the shores of the gulf of Mexico as far as Sabine River.

We have removed from Gilmore Place to Newington, which is a much more pleasant situation in every respect. My young baby, who has received the name of Audubon, is thriving and the other children are in good health, as is Mrs. MacGillivray. Dr. Aitkin is very well, preparing for his winter classes which begin five days hence. We had a very unexpected fall of snow last week, which however remained only three days. Provisions are expected to be dear this winter, on account of the badness of the summer and autumn, although in the lower districts I believe, the crops were all got in safely.

I have in hand just now a work on British Birds on a larger scale than that on the Rapacious species, and was anxious for the specimens of the wild Turtle Dove and the Black Dove, which Mr Audubon could not procure in London. I have desired my bookseller, Mr. Scott of Scott, Webster & Geary, Charterhouse Square, to procure for me among the dealers all my desiderata, there will be several plates representing the digestive organs, and a few skeletons with a multitude of wood-cuts, and I expect the first volume to be out by the middle of March at the latest. I have scarcely done anything in the way of money making since you left this, but must brush up, otherwise I shall be gazetted as an insolent book-maker. In the meantime I have plenty of offers, indeed if I had three heads and six hands, I have work enough for all.

I must endeavor to get through as much as possible before Mr Audubon comes back, which I hope will be about this time next year, when we shall have plenty of pickles. By the bye, it will certainly be necessary for him to take a small house for the

express purpose of dissecting, otherwise the odour of the rum will bring the excisemen upon us.

Please present my best regards to Mr. Victor, and be assured that, negligent as I am as to writing, I ever cherish a lively remembrance of you all, being perfectly assured that with him after whom my dearest William Craigie was named, you are my best friends. Pray God to keep you all and send us a happy meeting first in Edinburgh and finally in Heaven.

I have the honor to be, dear Madam

Your most obedient servant

W. MacGillivray.

THE RESIDENT LAND BIRDS OF BERMUDA.

BY OUTRAM BANGS AND THOMAS S. BRADLEE.

APART from a few sea birds that breed in Bermuda, there are but some ten species of birds¹ that are resident in the islands. Three of these — the House Sparrow, the European Goldfinch, and the Bob-white — have been introduced by man. Thus the indigenous ornithology of Bermuda includes but seven species of Land Birds — the Ground Dove, the Florida Gallinule, the Crow, the White-eyed Vireo, the Bluebird, the Catbird, and the Cardinal.

Many species of North American birds visit Bermuda, more or less regularly, on migration, and a few unexpected stragglers, such as the Corn Crake, the English Snipe, the Sky Lark, and the Wheatear have been taken there, but except in the cases of a few species, Bermuda does not lie in the regular line of migration and the coming and going of North American migrants are matters of much uncertainty.

In the various lists of the birds of Bermuda that have been pub-

¹ The Great Blue Heron and the Red-tailed Hawk are said to each have bred once in Bermuda. See Capt. Savile G. Reid's 'List of the Birds of Bermuda,' Bull. U. S. Nat. Mus., No. 25, 1884, pp. 220-221 and p. 242.

lished, the indigenous species have always been regarded as identical with continental birds. We have not had an opportunity of comparing specimens of the Bermuda Crow or the Gallinule, but of the other five resident birds all except the Bluebird are well marked, easily recognized island species peculiar to Bermuda.

The present joint article is the result of work done in the field by Bradlee, who spent the entire season just past from November till April at Hamilton, and had there excellent opportunities of studying the birds in life. The specimens he took were sent to Boston, most of them in the meat, and were critically compared by Bangs, with their continental relatives. The work of both is combined in the following short accounts of the different Bermuda Land Birds.¹

Colinus virginianus (Linn.).

QUAIL; BOB-WHITE.

Capt. Savile G. Reid, in his list of the Birds of Bermuda,² says the Quail was common prior to 1840, but became extinct in Bermuda about that time. It was reintroduced in 1858 or 1859.

The Quail is not abundant in Bermuda; two coveys were seen during the season just past, and others were heard of. The birds were very tame, and allowed themselves to be approached to within a few yards without taking alarm.

Columbigallina bermudiana Bangs & Bradlee, sp. nov.

BERMUDA GROUND DOVE.

Type, from Hamilton, Bermuda, ♂ adult, No. 39134 Coll. Museum of Comparative Zoölogy, Cambridge, Mass. Collected Jan. 30, 1901, by T. S. Bradlee.

Characters. — Size very small, smaller than *C. bahamensis* Maynard; bill *wholly black*, exceedingly small and slender (more so than in any other form of the *C. passerina* series); colors pale and ashy as in *C.*

¹ Measurements are in millimeters. Names of colors are those of Ridgway's 'Nomenclature of Colors.'

² Bull. U. S. Nat. Mus., No. 25, Contributions to the Natural History of the Bermudas, 1884, p. 226, 227.

bahamensis and *C. passerina pallescens* (Baird), but even paler and grayer throughout than in either; back of ♂ smoke gray, of ♀ between smoke gray and broccoli brown; forehead and ground color of breast, in ♂, vinaceous pink.

Measurements.

No.		Sex.	Wing.	Tail.	Tarsus.	Exposed culmen.
39134 (Type)	Mus. Comp. Zoöl.	♂	83	56	14.8	10.6
1	Bradlee Coll.	♂	78	55	14.2	9.8
4164	Bangs Coll.	♂	81	57	14.8	10.6
39135	Mus. Comp. Zoöl.	♂	81	56	15	10.8
2	Bradlee Coll.	♂	80	56	15	11.4
3	Bradlee Coll.	♂	78.5	56	15	11.2
4	Bradlee Coll.	♂	80	54.5	14.4	10.2
4165	Bangs Coll.	♀	80	55.5	15	10.8

The eight specimens upon which we base the Bermuda Ground Dove were taken at Hamilton in March and February; they have been very carefully compared with large series of the other races of *C. passerina*. The small size, very slender, short, wholly black bill, and the pale, gray coloring of the Bermuda bird are very distinctive characters, and it is perhaps one of the most easily recognized forms of the whole *C. passerina* series. In the freshly killed specimens the bill is wholly brownish black, without a trace of yellowish or orange; the foot and tarsus are flesh color.

The bird is abundant; throughout the autumn and early winter it is found in small flocks of from six to twelve individuals, but in the first part of January it begins to pair, and from then on is not so often seen.

Gallinula galeata (Licht.).

FLORIDA GALLINULE.

The Gallinule is resident in Bermuda and is also said to occur on migration. Although it may be commoner in the large marshes, it was seen only on one or two occasions during the season of 1900-1901.

Vireo bermudianus *Bangs & Bradlee, sp. nov.*

BERMUDA WHITE-EYED VIREO; "CHICK-OF-THE-VILLAGE";
"CHICK-CHOO-WILLIO."

Type, from Hamilton, Bermuda, ♀ adult, No. 39131, Museum of Comparative Zoölogy. Collected Jan. 30, 1901, by T. S. Bradlee.

Characters.—In general similar to *V. noveboracensis* (Gmel.). Wing much shorter (the wing of *V. noveboracensis* often reaching 65 mm. in length); tarsus longer; general coloration much grayer, less yellow and olivaceous. The color varies much individually; in extreme examples the whole upper parts are olive gray, only slightly shaded with olive green on rump and sides of interscapulium; the supra-loral region pale grayish yellow; wings and tail edged with olive gray; lower surface dull grayish white, sides and flanks olive gray faintly tinged with dull olive green; wing-bands pure white. The other extreme approaches more nearly to *V. noveboracensis* except that the back and head are always much more suffused with olive gray, and the sides and flanks always dull olive green, not sulphur-yellow. The usual style of coloration is about halfway between these extreme examples.

Measurements.

No.	Sex.	Wing.	Tail.	Tarsus.	Exposed Culmen.
39131 Mus. Comp. Zoöl. <i>Type</i> .	♂	58	46	20.4	10.6
1 Bradlee Coll.	♂	59	46.5	20.4	11
2 "	♂	59	47	20.2	11
3 "	—	58	45	20.6	10.4
4 "	—	59	46.5	20.2	10.4
8 "	—	59.5	47	20.2	10.4
10 "	♂	58	45	21	10.6
11 "	♂	59.5	47	20.4	10.8
4162 Bangs Coll.	♂	59.5	47	21	11
4161 "	♂	59	48	21	10.6

The ten specimens were all taken at Hamilton, in November, December, January, February and March. Though it varies much in color, the Bermuda Vireo can always be told from *V. noveboracensis* by its shorter wing and longer tarsus. The colors also, though they sometimes approach those of *noveboracensis*, are never the same, the Bermuda bird always having more gray in the back

and never any trace of sulphur-yellow on sides and flanks. So far as we know the peculiarities of the Bermuda Vireo have never even been alluded to in any of the various lists of the birds of these islands, though Mr. Wm. Brewster in describing *Vireo noveboracensis maynardi* from Key West, Florida,¹ said "two Bermuda specimens show only slight, and perhaps accidental, peculiarities" from *V. noveboracensis*.

The notes and song of *V. bermudianus* are not at all the same as those of *V. noveboracensis*. The usual note is a harsh scolding or querulous mew, often varied by a clear warble — *chic-hò-chic-a-choo-choo-weeoo*; *chic-choo-choo-weeoo-weet*, its song being surprisingly varied. It is one of the familiar birds of the islands, very tame and found everywhere, and very different in all its ways from its shy, retiring continental relative, *V. noveboracensis*.

The iris in *V. bermudianus* is *white* as in *V. noveboracensis* and not, "brownish, brownish gray, or gray" as stated by Capt. Reid.

Corvus (americanus Aud.?).

CROW.

Capt. Reid in his list of Birds of Bermuda gives a good account of the habits, etc., of the Crow in Bermuda (pp. 204, 205). It is, however, doubtful if the Bermuda crow is *Corvus americanus*. Its notes are said to be different, more like those of the European Carrion Crow (*Corvus corone* Linn.) — a hoarse, raven-like croak.

During the season of 1900-1901, crows were seen but seldom and never more than three together at any one time. They were shy and their notes were not heard distinctly.

Galeoscoptes bermudianus *Bangs & Bradlee, sp. nov.*

BERMUDA CATBIRD; "BLACKBIRD."

Type, from Hamilton, Bermuda, ♀ adult, No. 39130 Museum of Comparative Zoölogy. Collected Mar. 1, 1901, by T. S. Bradlee.

¹ Auk, IV, April, 1887, pp. 148, 149.

Characters.—Much smaller throughout than *G. carolinensis*. Wing and tail shorter. Primaries much shortened, in the closed wing extending only about 15 mm. beyond secondaries. All the wing feathers, primaries, secondaries and tertials much narrower than in *G. carolinensis*. Rectrices also narrower. Bill shorter and more slender, culmen slightly less decurved. Colors about the same, perhaps averaging slightly darker gray below.

Measurements.

No.	Sex.	Wing.	Tail.	Tarsus.	Exposed Culmen.
39130 Mus. Comp. Zool. <i>Type</i> .	♀	88	89	27.4	15.4
1 Bradlee Coll.	♂	88	90	27	15.4
2 " "	—	90	95	27.2	15.4
3 " "	♀	88	87	27	15.8
4163 Bangs Coll.	♂	85	88	26.8	15.8

Five specimens were taken at Hamilton in November, December, January and March. In general appearance the Bermuda Catbird much resembles true *G. carolinensis*, but on closer examination one is at once struck by the peculiar wing, with its short primaries and narrow feathers. The tail is also much shorter and composed of much narrower feathers. The shortening of the wing is a common character in island birds of feeble flight, that are no longer called upon to perform long migrations. In the Catbird of Bermuda it is carried to a great extent, and the wing has a very feeble look.

The Bermuda Catbird has habits and notes very similar to those of the Catbird of the continent. It is very common about the houses and gardens.

Sialia sialis (Linn.).

BLUEBIRD.

The resident Bluebird of Bermuda does not differ to any appreciable extent, from that of the continent of North America generally. Perhaps it averages rather brighter, clearer blue, less purplish above, and the blue seems to be slightly more extended

onto the malar region. But in both these characters it is equalled by occasional specimens from the United States. The color of the back of the male is more like that of the resident bird of south Florida, *Sialia sialis grata* Bangs, but this well marked form has, besides, a very much larger bill and heavier foot and tarsus.

Measurements.

No.	Sex.	Wing.	Tail.	Tarsus.	Exposed Culmen.
39128 Mus. Comp. Zoöl.	♂	98	63	20	11
39129 "	♂	95.5	62	19.8	10.8
1 Bradlee Coll.	♂	100	67.5	19.2	10.2
2 "	♂	101	67	19.4	11
3 "	♂	99.5	65	19.6	10.8
4166 Bangs Coll.	♂	103	65	19.2	11.2

The above measurements, taken from six specimens collected at Hamilton in November, January, February and March, show the proportions to be just as in true *S. sialis*.

Besides being resident in Bermuda, the Bluebird is said to often appear in numbers on migration; possibly some of these remain and breed and thus counteract any tendency to vary that the island birds might develop if wholly cut off from the main body of the species.

The Bluebird is very abundant in Bermuda, and in autumn and winter is gregarious, being seen in flocks of ten or a dozen.

After the hurricane of 1899 there was a noticeable decrease in the number of Bluebirds, but they have now regained their former numbers.

Carduelis carduelis (Linn.).

GOLDFINCH.

Introduced, but just when seems to be uncertain, Capt. Reid mentions seeing one on April 5, 1875, that was very wild and that he supposed was an escaped cage bird.

The Goldfinch is now a common bird in Bermuda, but is exceedingly shy and wary.

Two specimens were secured during the season just past.

Passer domesticus (Linn.).

HOUSE SPARROW.

Introduced in 1874 (a few some time before that date), it is now exceedingly abundant throughout the islands.

Cardinalis bermudianus Bangs & Bradlee, sp. nov.

BERMUDA CARDINAL; "RED BIRD."

Type, from Hamilton, Bermuda, ♂ adult, No. 39132, Museum of Comparative Zoölogy. Collected Mar. 2, 1901, by T. S. Bradlee.

Characters.—Wing short, shorter even than in *C. cardinalis floridanus* Ridgw; proportions otherwise (except those of bill) about as in *C. cardinalis cardinalis*. Bill peculiar; bright vermillion in color; short, stout and abruptly pointed; culmen much curved; upper mandible grooved, angle very abrupt, and edge very much lobed; lower mandible equal in depth to upper. Colors of ♂ very bright, lower parts orange-vermillion (vermillion in *C. cardinalis cardinalis*) top of head and crest also orange-vermillion. Colors of ♀ much as in *C. cardinalis floridanus*, — much intermixed with red on breast and cheeks, — red of crest paler, more of an orange red.

Measurements.

No.	Sex.	Wing.	Tail.	Tarsus.	Exposed Culmen.
39132 Mus. Comp. Zoöl.	♂	92	99	24.2	17.4
1 Bradlee Coll.	♂	93	100	25	17
2 " "	♂	92	98	25	17
4159 Bangs Coll.	♂	90.5	95	25	17
4158 " "	♂	92.5	94.5	24	17
39133 Mus. Comp. Zoöl.	♀	90	94	25	17
3 Bradlee Coll.	♀	89	91	24.4	16.6
4 " "	♀	89.5	92	23.8	16.6
5 " "	♀	91	95	23.8	17
6 " "	♀	90	95	24	16.6
4160 Bangs Coll.	♀	89.5	91	23.2	16.6

This fine series of eleven specimens was taken at Hamilton in November, December, January, February and March. There is little individual variation in important characters, some males, as usual in any series of Cardinals, are much brighter than others, but all are orange-vermilion in color. The curious bill of the Bermuda Cardinal is very characteristic, at once separating it from any of the other forms. The grooving of the upper mandible is more pronounced in some specimens than in others, but all show it to some extent. It is rather a singular fact that none of the other red-billed Cardinals have grooved upper mandibles, while the Venezuelan Cardinal (*C. phoeniceus* Gould) that has a whitish brown bill has a grooved mandible.

The Bermuda Cardinal is abundant everywhere in the islands. On January 6, 1901, it was heard singing its "spring song" for the first time — *woo-oo-it*; *woo-oo-it*; *woo-oo-it*.

A NEW GROUND DOVE FROM WESTERN MEXICO.

BY OUTRAM BANGS.

A SHORT time ago my brother and I came into possession of two skins of a Ground Dove, that were collected by P. O. Simons, in the summer of 1897, in Sinaloa, Mexico — one at Los Rables, the other at Escuinapa. In size and proportions these two specimens agree with true *Columbigallina rufipennis* (Bp.), but differ much from that bird in the general pallor of their coloration; the underparts are much paler vinaceous, and the rich vinaceous chestnut of back and wings of *C. rufipennis* is replaced in the Sinaloa form by pinkish vinaceous.

The type locality of *Talpacotia rufipennis* Bp.¹ is Cartagena, and the range of the species is usually given as from Guiana, Venezuela, and Colombia north to Orizaba and Colima, Mexico. Thus Sinaloa is beyond (northwest of) the known geographic

¹ Bonaparte, Consp. Av., II, p. 79.

range of true *C. rufipennis*, and the *pale* northwestern form of the rufous-winged Ground Dove may be known as,

***Columbigallina rufipennis eluta*,¹ subsp. nov.**

Type from Escuinapa, Sinaloa, Mexico, ♂ adult, No. 3947, Coll. of E. A. & O. Bangs. Collected July 25, 1897, by P. O. Simons.

Characters.—Size and proportions as in true *C. rufipennis*. Colors all much paler. Adult ♂, summer plumage: Front and supercilium drab; crown pale olive gray; cervix, back and wings (except primaries and bastard wing) pale vinaceous, palest on sides of neck, and with a slight olivaceous tinge on back, the wing feathers, as usual, irregularly spotted with black; rump and upper tail-coverts strong vinaceous; primaries rufous, dusky at tips and along outer margins; bastard wing black with rufous patches in the middle of the feathers; tail black, the outer rectrices with buffy white terminal markings on outer webs, and slightly tipped with brownish, middle rectrices vinous hazel; throat whitish, rest of under parts dull vinaceous pink; axillars and most of under wing-coverts black.

Measurements.

No.	Locality.	Sex.	Date.	Wing.	Tail.	Tarsus ²	Exposed culmen.
3947.	Mex. Sinaloa, Escuinapa.	♂ ad.	July 25, 1897	89.	66.5	15.5	12.
3948.	Mex. Sinaloa, Los Rables.	♂ ad.	Aug. 22, 1897	88.	68.	16.	11.4

THE MONTEREY HERMIT THRUSH.

BY JOSEPH GRINNELL.

***Hylocichla aonalaschkæ slevini*, new subspecies.**

Subsp. Char.—In general coloration extremely pale and ashy, nearly as much so as *H. a. sequoiensis*, but size even less than in *H. a. verecunda*.

¹ Elutus, washed out, insipid.

² The tarsus is somewhat feathered on upper part of outer side, as in true *C. rufipennis*, and the other members of the subgenus or group *Talpacotia*.

Coloration.—Above hair brown slightly browner on top of the head; upper tail-coverts and tail isabella color. Ground color of underparts and sides of head white, except a scarcely discernible tinge of cream buff across the breast; sides and flanks faintly washed with drab gray. Spots on breast sepia, small in size and few in number; a series extends on each side up to the ramus of the lower mandible forming two malar stripes which enclose an immaculate throat patch. Outer surface of closed wing isabella color.

Type.—♂ ad., No. 14096, Coll. California Academy of Sciences; collected by T. E. Slevin in the vicinity of Point Sur, Monterey County, California, May 9, 1898.

Range.—Breeds in the cloudy coast belt of California, from southern Monterey County northward, locally at least, to Sonoma County. A typical specimen (No. 967, Coll. J. G.) taken at Pasadena, California, April 25, 1896, and another (No. 10662, Coll. C. A. S.) obtained on Santa Margarita Island, Lower California, Feb. 8, 1888, evidently indicate points along the migration route of this race.

Measurements.—The following table shows the average length in millimeters of the wings and tails of all available summer adults from the localities named.

			Wing	Tail		Wing	Tail
<i>H. a. aonalaschka</i>	Kadiak Island, Alaska.	4 ¹ ♀ ♀	84	72	1 ♂	90	76
<i>H. a. verecunda</i>	Sitka, Alaska.	9 ♀ ♀	83	70	4 ♂ ♂	86	73
<i>H. a. slevini</i>	Coast Belt of California.	3 ♀ ♀	81	69	7 ♂ ♂	84	71
<i>H. a. sequoiensis</i>	Sierras of California.	1 ♀	91	74	5 ♂ ♂	95	80
<i>H. a. auduboni</i>	Chiricahua Mts. Arizona.	2 ♀ ♀	99	81	4 ♂ ♂	104	84

Remarks.—The Sierra Thrush described by Mr. Belding² seems to me a well-characterized race. It differs from *auduboni* in decidedly smaller size, and from *aonalaschka*, *verecunda*, *slevini* and *nanus* in larger size and paler coloration. The type of *audu-*

¹ *Fide* Osgood, Auk, XVIII, April, 1901, pp. 183-185.

² *Turdus sequoiensis* BELDING, Pr. Cal. Ac. Sc. II, June 1889, p. 18.

Hylocichla aonalaschka sequoiensis FISHER, Condor II, Nov. 1900, p. 138.

boni, from Fort Bridger, Utah, measured,¹ as reduced to millimeters: wing 106, tail 91. And all the southern Rocky Mountain examples I have access to have the wing longer than 100 in the male. It is of especial value in the determination of the western races of the Hermit Thrush, that there seems to be but little individual variation in the measurements of a series from a single locality. For instance, the extremes among the 9 females of *verecunda* from Sitka are: wing, 82 to 85; tail, 68 to 72.

Probably most of the summer records of *auduboni* from the interior of California refer to *sequoiensis*, while the winter records in some cases seem to be based on large males of the olivaceous *aonalschkae*, which winters abundantly in the interior and southern portions of the State. The bright brown-backed, buffy-breasted *verecunda*, as shown by many specimens examined, passes the winter principally in the cloudy coast belt. It is the prevailing form in winter in the San Francisco Bay region and Santa Cruz Mountain district. Both *sequoiensis* and *slevini* evidently winter entirely south of California.

At the suggestion of Mr. L. M. Loomis, the subspecies herein described is named for Mr. T. E. Slevin of San Francisco, a quiet but ardent bird-student.

THE WINTER BIRDS OF PEA ISLAND, NORTH CAROLINA.

BY LOUIS B. BISHOP, M. D.

BLEAK and dreary seemed Pea Island — a monotonous sand-flat with promontories of marsh-grass, its dull level broken only by a few scattered buildings and here and there a low sand hillock — as I watched it on the afternoon of February 7, 1901, from a small boat which two colored boatmen had succeeded in getting hard aground on the flats that stretched for miles into Pamlico Sound.

¹ BAIRD, Rev. Am. Bds., June 1864, p. 17.

Regarding the general character of the place, I had found little to change my views when I left for home on the morning of February 18, but I was more than once surprised at the birds which made these marshes and flats a winter home.

Pea Island lies between Oregon and New Inlets, separating part of Pamlico Sound from the ocean, and is about 30 miles north of Hatteras. It is about five miles long by one mile in width, and along the center stand the dead stumps of cedars, showing its once greater elevation. But I was told these stumps have looked the same for over one hundred years, and now at high tide their roots and most of the island are covered; little but the crest of the ocean beach, a few sandhills covered with a sparse growth of beach grass, and islands of salt marsh showing that there is land beneath the waves.

In storms and by very high tides these too are covered, and only the few buildings show above the water. I was told that the water had been at times a foot deep on the floor of the clubhouse, although this building is situated on the highest land on the Pamlico Sound shore, and elevated several feet from the ground. At such times great destruction of life among the smaller land birds would seem probable, and the wild fowl that find a congenial winter home, with abundant food easily obtained in the shallow water of the Sound, can be shot from the clubhouse veranda.

At the time of my visit some unknown cause, for food was abundant — possibly the unusual saltiness of the water from the long drought — had made the Geese and Redheads desert these waters, and the Brant, able to feed through the low tides, kept so far offshore that trying to shoot them was useless.

In the marshes, of which a number are each several acres in extent, often intersected by broad or narrow channels, compose most of the sound shore of the island, may be found in places patches of low bushes, showing no sign of life in winter, and broad stretches of a sharp-pointed marsh grass, apparently the same that compose the salt marshes of western Florida. Our northern marsh grass occurs also, and in sufficient quantity to keep about twenty horses and cattle in good condition, though left to forage for themselves all winter. Not a tree is now growing on Pea Island,

but the vegetation on Roanoke Island — lying about ten miles northwest — two species of pine, live oaks, cypresses, with a dense undergrowth of myrtle, bay and laurel, bound into impenetrable thickets by smilax — would show one had entered a southern fauna were the sharp-pointed marsh-grass insufficient. Bodie Island, a larger island of much the same character as Pea Island, but with more abundant vegetation, and lying north of the latter, contains at its southern end a large marsh. This seemed a typical resort for Wilson's Snipe, but five men and two dogs failed to find one there though hunting carefully.

The weather was, as a rule, clear and warm during my stay; only once did the thermometer fall to 26° at 8 A. M., and on two mornings it registered 50° at that hour. There were two or three stormy days, but no very severe gale, so I think it safe to consider the land and shore birds found were normal winter residents. Many other species, especially of ducks and water birds, are known to occur at Pea Island in winter, but I have included only those of which I saw specimens during my visit.

Among the birds found moulting in only one species was there any sign of renewal of the primaries and rectrices, and in most only a few scattered pin feathers, most frequent about the head and neck.

Regarding migration, the interesting fact appears that of 20 specimens of the *Limicolæ*, representing five species, omitting *Ægialitis vocifera*, collected at what must be nearly the northern limit of their winter range, 18 were males and only 2 females, while of seven Ipswich Sparrows (*Ammodramus princeps*), at nearly their southern winter limit, all were females. This adds strength to my former belief that in migrating birds the bulk of the males remain farther north than the females in winter, for I do not think that with any of these birds the northward movement had commenced.

In studying the migration of birds it seems to me that too little weight has been laid on the origin of the different species and genera, whether they are Boreal types, developed probably in the Holarctic Zone, or autochthonous in temperate or tropical North America, different rules of migration, and different causes, probably operating in these two classes. The distribution of the subspecies of one species, and the species of one genus during the different seasons, will aid in understanding both causes and rules.

Boreal forms, of which *Otocoris*, *Calcarius* and *Acanthis* are good examples, forced south in winter by lack of food, seem to move in regular order, keeping individually about the same north and south relations to the bulk of the species, or wander in large flocks in search of food, as *Ampelis*, *Loxia* and *Pinicola*.

In the other class will be found species developed either in the Austral Zone of North America or the American Tropics, which, originally forced north in summer for reproduction by the crowding of life in the tropics, repeat this movement yearly through the continued operation of the primary cause and the formation also of habit. In these birds it appears that those breeding farthest north, though appearing at midway stations in the fall after the birds of the same species breeding there have left, pass as far or farther south in winter. Birds of the genera *Hesperocichla*, *Hylocichla*, *Junco*, *Leucosticte*, *Zonotrichia*, *Melospiza*, *Passerculus*, *Ammodramus*, *Dendroica* and *Vireo* will illustrate this. In the spring these northernmost breeding birds seem to pass the half-way stations, as a rule, when the birds breeding there are already at home. This movement I think I have noticed in species of the genera *Quiscalus*, *Agelaius*, *Icterus*, *Melospiza*, and *Ammodramus*. On the basis of this Dr. Coues separated *Dendroica caerulescens cairnsi* before he had seen a bird from the summer habitat of this subspecies.

Austral birds as a class would then pass north in summer chiefly because their winter homes and the intermediate stations are already occupied, and return in winter toward the original habitat of the species. Boreal birds on the other hand, forced south originally and each year by the lack of food in their homes in winter, would return north when approaching summer makes it possible, and in strong-flying species might readily develop the habit of long journeys, as is shown by the boreal *Limicolæ*.

I do not wish to claim that these rules will hold with all species; I offer them simply as a contribution to the study of migration.

1. *Gavia imber*. LOON.—A young female, in which the first nuptial plumage is appearing on the back, wing-coverts, rump and tail-coverts, was taken on February 15. The feathers of the head and neck still show the downy texture and the black tipping on the side of the throat characteristic of the first winter plumage.

2. *Larus marinus*. BLACK-BACKED GULL.—I thought I saw one or two in young plumage among the flocks of Herring Gulls, and Mr. C. R. Hooker told me he saw an adult on the 15th. Mr. Hooker is perfectly familiar with the species.

3. *Larus argentatus smithsonianus*. AMERICAN HERRING GULL.—Abundant, but shy as a rule. None were taken. I was told that large numbers are caught in the shad nets, and that after storms as many as 100 killed in this manner have been found in a single morning.

4. *Larus philadelphia*. BONAPARTE'S GULL.—An adult male, taken on January 28, was still in a condition to save on my arrival. I saw none during my stay.

5. *Merganser serrator*. RED-BREASTED MERGANSER.—A few were seen in small flocks or alone, but none taken.

6. *Anas obscura*. BLACK DUCK.—Common but shy, coming to the marshes to feed at night and in stormy weather. An adult female had the bill yellowish olive-buff; the nail of bill and interramal space of mandible black; tarsi and toes ochraceous buff, nails and center of palmations blackish. I think the coloring of the tarsi and toes in this species depends on age and sex, and is not distinctive of a different race, as has been suggested. An adult male in very high plumage, having recurved feathers on the tail-coverts like the Mallard (*Anas boschas*), taken at New Haven, Jan. 14, 1901, had the tarsi and toes bright rufous.

7. *Aythya americana*. REDHEAD.—Flocks were frequently seen flying over the Sound, but none taken.

8. *Aythya marila*. SCAUP DUCK.—Flocks were seen while crossing Pamlico Sound and occasionally from the island. None were taken during my visit, but a number had been shot a few days previous.

9. *Charitonetta albeola*. BUFFLE-HEAD.—Fairly common in small flocks but keeping well offshore. An adult male had the bill plumbeous washed with black; nail of maxilla yellowish, interramal space of mandible black; tarsi, toes and palmations vinaceous buff, nails black.

10. *Harelda hyemalis*. OLD-SQUAW.—I saw several small flocks in Pamlico Sound on February 7, and again on the 18th.

11. *Oidemia deglandi*. WHITE-WINGED SCOTER.—The same remarks apply to this species.

12. *Chen hyperborea nivalis*. GREATER SNOW GOOSE.—Among the decoy geese was a fine specimen of this species in full plumage, and almost as large as a male Canada Goose. It was taken in the gray plumage of the first winter on Pea Island in January, 1900. I saw no others, but learned that a number are shot each winter at the southern end of Bodie Island.

13. *Branta canadensis*. CANADA GOOSE.—Not common during my stay, although we sometimes saw twenty flocks or more in a day. Up to the last of January they had been abundant. That the male is much larger than the female does not seem generally recorded. A young female taken February 13 was very thin, and still retained the brownish feathers in the

black of the neck, and particularly at the junction with the pale breast, which are significant of immaturity. Mr. J. B. Etheridge, the manager of the Pea Island Club assures me that these geese keep in families throughout the winter, and that if both old birds are shot the young will return to the decoys, but if one old bird escapes it will guide the young to safety.

14. *Branta bernicla*. BRANT. — The most abundant sea-fowl but staying well offshore in large rafts, probably because the water was so low from lack of rain that they were able to reach the bottom a long distance from land. It may not be known to all that Canada Geese and Brant, though feeding on a plant growing on the bottom, do not dive, taking their food only in water so shallow that they can reach the bottom with their long necks by tilting their white afterparts in the air. The effect of a flock changing thus from black to white is very peculiar. As the tide rises they swim toward the shore, keeping always in water where they can reach the bottom.

Sailing to Roanoke Island on February 18, we saw thousands of Brant, and noticed three dead ones, caught by their necks in the shad-nets which are set in the shallow water of this part of Pamlico Sound as thickly as nets in a tennis field. The wind freshening as we sailed we were obliged to cut four of these nets to avoid capsizing.

Young Brant may be distinguished from adults as late as the middle of April by the white tips to the wing-coverts which persist long after the brownish head and throat have become glossy black, and the white feathers on the sides of the neck have appeared.

15. *Botaurus lentiginosus*. AMERICAN BITTERN. — A female was taken on February 11.

16. *Ardea herodias*. GREAT BLUE HERON. — I saw one on the 8th, and one on Bodie Island on the 16th.

17. *Rallus crepitans*. CLAPPER RAIL. — A male was taken on the 13th and another on the 16th. From what comparisons I have been able to make I think these birds intermediate between *crepitans* and *waynei*, but somewhat nearer the former.

18. *Rallus crepitans waynei*. WAYNE'S CLAPPER RAIL. — A female taken on Feb. 9 and a male on the 11th. Mr. Brewster has kindly examined them and pronounces them typical of this form. The female is much the smaller bird, and was moulting in the contour feathers.

The iris of the male was raw sienna; culmen slate-black, tip of mandible slate, base of tomial maxilla ochraceous, rest of bill clay color; tibiae, tarsi and toes dark broccoli brown, tibiae washed in front with buff-yellow; nails clay color.

In habits these birds are like *crepitans*, keeping closely to the thick marsh grass, and are with great difficulty flushed even by a dog.

19. *Rallus virginianus*. VIRGINIA RAIL. — A female was taken on Feb. 9. It was moulting and had the ovary on the right side.

20. *Tringa minutilla*. LEAST SANDPIPER.—I took a male on the seventh that was alone in the marsh. Another of this species taken on the 11th was with other sandpipers on the flats.

21. *Tringa alpina pacifica*. RED-BACKED SANDPIPER.—This was the most abundant sandpiper on the island, feeding in large flocks on the flats. Eight collected were all moulting; and I find it rare to take a Red-backed Sandpiper between the first of September and the last of May that does not show pin-feathers. Two only were females, and both of them and three of the males were in first winter plumage. Young of this species do not moult the feathers of the rump and upper tail-coverts in fall, and by the pale orange rufous tips to these feathers may be distinguished from adults with pale gray edgings, sometimes as late as April.

22. *Ereunetes occidentalis*. WESTERN SANDPIPER.—Common with the other sandpipers on the flats. Four collected, of which two were moulting, were all males, with bills longer than the extreme of female *pusillus*.

23. *Calidris arenaria*. SANDERLING.—Almost as common as the Red-backed Sandpiper—flocks of 30-40 being often seen—and feeding with them on the flats. Of six collected all were males, three young and three adult, and only one was moulting.

The young Sanderling also does not moult the rump and upper tail-coverts in the fall, and may be distinguished in February by the broad dark centers of these feathers in place of the narrow central dark stripe of the adults. The first winter plumage is also a trifle darker than the adult.

24. *Totanus melanoleucus*. GREATER YELLOW-LEGS.—A single bird of this species I saw and heard on February 12.

25. *Squatarola squatarola*. BLACK-BELLIED PLOVER.—Twenty or thirty were living on the flats, but were very shy. The only one taken was a young moulting male.

Young may be separated from adults at this season by the presence on the feathers of the lower neck and breast of a dark distal shaft-streak, while these feathers in adults are tipped or washed with brownish. The white of the forehead is broader also in adults.

26. *Ægialitis vocifera*. KILLDEER.—A few were wintering about the channels running into the marshes on the northern part of the island. In two females, taken Feb. 16, the ova were noticeably enlarged, pointing probably to adjacent breeding grounds.

27. *Cathartes aura*. TURKEY VULTURE.—A few were seen daily, feeding on the bird bodies washed upon the shore. An adult male caught in a trap set for a Bald Eagle had the iris broccoli brown; the bill white; bare part of head vinaceous with white caruncles; tarsi and toes dirty white mixed with black, nails black.

28. *Circus hudsonius*. MARSH HAWK.—One or two seen daily. An adult female, taken Feb. 13, was feeding on the decaying body of a goose. The iris and cere were canary yellow; bill black becoming cinereous toward base; tarsi and toes chrome-yellow; nails black.

29. *Haliaeetus leucocephalus*. BALD EAGLE.—Common, sometimes several being in sight at one time. Two in immature plumage were taken on Feb. 4 and 5. The majority seen were adults, and were feeding on the dead fish and birds along the shore.

30. *Otocoris alpestris*. HORNED LARK.—A male and two females were taken on Feb. 7 and 8, but no others seen. The male was moulting.

31. *Agelaius phoeniceus*. RED-WINGED BLACKBIRD. Two were taken from a flock of about a dozen females on Bodie Island, Feb. 16. One had the crimson shoulders and salmon throat characteristic probably of maturity, the other the dull ochraceous shoulders and pale buffy throat of the young.

32. *Sturnella magna*. MEADOWLARK.—Common. Of a male and female taken the latter alone showed pin-feathers.

33. *Scolecophagus carolinus*. RUSTY BLACKBIRD.—A single male called at the clubhouse for a few minutes on the evening of Feb. 17, and returned to be collected before we sailed the next morning.

34. *Quiscalus major*. BOAT-TAILED GRACKLE.—I saw one male on Feb. 10, and five males near Oregon Inlet on the 16th. This bird is locally known as the 'Jack-daw.'

35. *Passerina nivalis*. SNOWFLAKE.—I found a flock of three on Feb. 14. Two were males and one a female, and all were moulting. If, as Dr. Dwight states, the whiter birds are adults, these were young birds, and I find the following characteristic differences in plumage at different ages. Males and females in first winter differ chiefly in the males having white on inner web of third rectrix. Adult males differ from young males by more white on wings and wing-coverts. Adult females differ from young females by whiter wings and white on inner web of third rectrix. Adult females differ from young males by the blacker interscapulars of the latter. Adult males differ from adult females by whiter wings and wing-coverts, and by having the dark markings of the interscapulars, wings and tail blacker.

36. *Ammodramus princeps*. IPSWICH SPARROW.—Rather common. Six were collected on Pea Island, and I think I saw others. On Bodie Island I took one and saw several in a short walk. All taken were females, and only one showed moult.

37. *Ammodramus sandwichensis savanna*. SAVANNA SPARROW.—The most common bird on the island, living in the weeds and dry grass about the sandhills. Six males and nine females were collected, one of the latter alone showing moult.

38. *Ammodramus caudacutus*. SHARP-TAILED SPARROW.—Following the last in numbers, this species kept closely to the marshes and could seldom be obtained except on the wing. None were moulting. Ten males and nine females taken seem to show two distinct races,—a dark, highly-colored bird, with strongly contrasted plumage, both above and below, and a paler, duller-colored bird, with little contrast in the plumage, especially of the back, which apparently represents *caudacutus* of New

England, closely resembling December birds from Connecticut. The dark birds have the dark markings below blacker and more conspicuous, the feathers of the crown and interscapulars darker, almost black in some specimens, in marked contrast to the hind neck, and pale interscapular edgings, and the buffy markings everywhere approach ochraceous in tint.

In length of wing and tail the two forms average the same, but the females of the dark race have slightly longer bills. Measurements of 114 specimens of *Ammodramus caudacutus*, *A. nelsoni*, and *A. n. subvirgatus*, lead me to think length of bill one of the best diagnostic characters of these birds.

The dark race was by far the more common, six males and eight females, and one bird of indeterminable sex, being referable to it, against four males and one female to true *caudacutus*.

39. *Ammodramus nelsoni*. NELSON'S SPARROW.—Common, frequenting the same marshes as the Sharp-tail, and even more difficult to flush. While on the wing I could usually distinguish it by its smaller size and brown color. Three males, six females and one of doubtful sex were taken. One of the males is intermediate with *subvirgatus*, having the plumage of this form, but the measurements of *nelsoni*. One female, which I am obliged to call *nelsoni* for lack of any other name, is very highly colored, ochraceous replacing buff throughout the plumage, and buff replacing white. None taken showed moult.

40. *Junco hyemalis*. SLATE-COLORED JUNCO.—A male, the only one seen, was taken on Feb. 8.

41. *Melospiza melodia*. SONG SPARROW.—A moulting male was taken on Feb. 8, but no others observed. This bird was renewing one of the central tail feathers, and was the only bird taken showing moult of remiges or rectrices.

42. *Cistothorus marianæ*. MARIAN'S MARSH WREN.—I took a typical male of this species in a marsh on Feb. 8, but hunt as I might I could not find another. The grass of the marsh seemed the same as that which this bird and Scott's Rail frequent at the mouth of the Anclote River, Florida.

The presence of this species, the Boat-tailed Grackle and Wayne's Clapper Rail on Pea Island in winter would point to the probability that this island belongs in the Semitropical Strip of Dr. Merriam's Austro-perian Belt, which is a part, as I understand it, of the Louisianian Fauna of Dr. Allen.

A NEW SHARP-TAILED FINCH FROM NORTH
CAROLINA.

BY LOUIS B. BISHOP, M. D.

Ammodramus caudacutus diversus, subsp. nov.

SOUTHERN SHARP-TAILED SPARROW.

Type.—Adult female, No. 5661, Coll. of L. B. Bishop, Wanchese, Roanoke Island, North Carolina, May 10, 1901; L. B. B.

Subspecific characters.—Similar to *Ammodramus caudacutus* but darker, with the color in stronger contrast. The dark markings above are much broader and darker, varying from dark chestnut to black on the head, scapulars, interscapulars and tertiaries, in nuptial plumage, and the pale edgings of the interscapulars are buffy instead of whitish. The feathers of the rump and tail are rich brownish olive instead of pale grayish olive, and have broader dark shaft-streaks. The ochraceous of the superciliary and malar stripes is much brighter, and the dark markings of the breast and flanks blacker.

Measurements.—Type: length, 5.94; wing, 2.12; tail, 2.04; bill from nostril, .36 inches. Average of 7 males: length, 5.73; wing, 2.30; tail, 2.09; bill from nostril, .37 inches. Average of 10 females: length, 5.57; wing, 2.20; tail, 2.03; bill from nostril, .37 inches.

Twenty Sharp-tailed Sparrows which I collected on Pea Island, North Carolina, last February, I was surprised to find separable into two very distinct forms as described on page 367 of this number of 'The Auk.' Returning to Pea Island in May I took on the southern end of Roanoke Island a single female of the dark form on the 10th, and a male and female on Pea Island on the following day. On Roanoke they appeared to be common, but I found no others I was certain were of this species on Pea Island, in the few hours I was able to devote to the search.

These three birds differ from Connecticut specimens of *A. caudacutus* taken in May so widely that, considering them in connection with the two forms common on Pea Island in winter, it seems necessary to describe them as a new subspecies. As Gmelin's *Oriolus caudacutus* was based on Latham's 'Sharp-tailed Oriole,' and this bird was described and figured from a specimen in Mrs. Blackburn's collection that was taken in New York, it is evidently the dark, southern form which requires a name.

Two Sharp-tailed Sparrows I took near Tarpon Springs, Florida, in the early spring of 1897, are referable to the new race.

In general plumage *A. c. diversus* has the richest coloring of any of the group, including even spring specimens of *A. nelsoni*. Typical examples of this form in winter resemble very closely some specimens of *nelsoni* in the coloring of the upper parts — much more than they resemble typical examples of *A. caudacutus* — but may be easily distinguished from the former at any season by their larger size, longer bill and very conspicuous dark stripes on the breast and flanks.

In measurement *diversus* and *caudacutus* are practically the same, and intermediates in coloring occurred on Pea Island in winter.

GENERAL NOTES.

Holbæll's Grebe on San Francisco Bay. — On November 30, 1900, three Grebes, which were strange to me, were seen swimming near the shore of the Presidio, one of which I shot. The bird proved to be *Colymbus holbællii* in adult plumage and a female. No others have been seen by me since this date, although a great part of my time is spent upon the lower bay. The only other specimen I know of is a male, No. 1867 of the collection of the California Academy of Sciences, taken December 25, 1882, at Oakland. The Academy also has a single specimen taken at Monterey on December 31, 1894, which is labeled a female and is No. 1433, a record of which is found in 'California Water Birds,' No. II, on page 14. Mr. Leverett M. Loomis, in his extensive work off Monterey, has found this bird very uncommon. It seems to be very rare on lower San Francisco Bay, that is, that portion bounded by the ocean and where the bay branches to spread north and south. It is possible, but not probable, that it occurs on other portions of the bay. — WM. H. KOBBE, *Fort Mason, San Francisco, Cal.*

The Question of the Generic Name *Gavia*. — In the September, 1900, number of the 'Ornithologische Monatsberichte' (Vol. VIII, page 135), Dr. Anton Reichenow claims that the name *Gavia* Forster is a synonym of *Urinator* Cuvier, basing his assumption on the use of the name *Gavia* for a species of Gull by S. G. Gmelin in his 'Reise durch Russland' (Vol. I, page 152).

An examination of Gmelin's work shows that he used the name *Larus* for the Gulls systematically throughout his 'Reise' and only in one instance makes use of the name *Gavia*, and in this case merely as a quasi citation from Brisson, and having no reference whatever to *Gavia* Möhring. The passage in which *Gavia* is used, so far as it has any bearing on the case in point, is as follows: "*Gavia ridibunda phaenicopos*. Die Grosse Lach-Möve. Sie ist von Brisson schön beschrieben worden, und ich habe bey ihr nur zwey Anmerkungen zu machen. Die eine betrifft den Unterschied des Geschlechts, und diese besteht in Schnabel. . . ."

On referring to Brisson I find in Vol. VI of his 'Ornithologie,' page 196, that he describes a Gull to which he applies the name *Gavia ridibunda phaenicopos*, to which Gmelin here refers. Brisson, however, did not recognize a genus *Gavia*, but placed all the Gulls under *Larus*, beginning in every case his diagnoses "*Larus supernæ cinereus*," etc., as the case might require. Brisson's genus *Larus* is his genus "No. CII," under which he has 15 species, the technical name of 5 of which begins with the name *Larus* and the remaining 10 with the name *Gavia*, an eccentricity not confined to the genus *Larus*, and of no nomenclatural significance (see, for example, under Brisson's genus *Anser*, where *Cygnus* and *Bernicla* are employed in place of *Anser*).

The use of the name *Gavia* by Gmelin is merely in the sense of a reference to Brisson, he nowhere adopting *Gavia* in a generic sense for any Gull. It is evident, therefore that by no fair construction can *Gavia* be considered as established in a generic sense by S. G. Gmelin in 1770, and that it, "therefore, must be considered as a mere synonym of *Larus*." — J. A. ALLEN, *American Museum of Natural History, New York City*.

Occurrence of the Glossy Ibis at Washington, D. C. — A specimen of the Glossy Ibis (*Plegadis autumnalis*) was shot by a hunter near Washington, D. C., September, 1900, and brought to the taxidermist shop of Mr. A. E. Colburn, to be mounted, where I examined it while it was in the flesh and absolutely identified it.

So far as I can learn, this is the first instance of the occurrence of this species in the District of Columbia. — JOHN W. DANIEL, JR., *Lynchburg, Va.*

The Red Phalarope (*Crymophilus fulicarius*) on the Coast of South Carolina. — An adult male of this far northern species was captured alive near the town of Mount Pleasant, S. C., in an exhausted state, by Mr. W. D. Hamlin on December 4, 1900, and presented to the writer. Upon preparing the specimen I found it to be greatly emaciated, but the plumage was entirely unworn. As far as I am aware this is the most southerly record of this bird for the Atlantic coast. — ARTHUR T. WAYNE, *Mount Pleasant, S. C.*

An Additional Note on the Genus *Macrorhamphus*.—It is well to remember in connection with the breeding range of *M. griseus* given in my recent paper on this genus (Auk, XVIII, pp. 157-162), that in 'Fauna Boreali-Americana,' Swainson and Richardson state that the species breeds from the shores of Lake Superior northward, a fact which at that time was probably true. I am also lately in receipt of, and here permitted to record, two young specimens of *M. g. scolopaceus* (Nos. 167026, 167027 U. S. Nat. Mus.) through the kindness of Mr. Edward A. Preble. They were taken by him at Button Bay, near Fort Churchill, Hudson Bay, on July 31, 1900. The Dowitchers were, he writes me, "abundant in the pools on grassy tundra," and were moving southward. The fact of their presence in such numbers would go to show that this subspecies, after breeding, ranges over the country eastward to the shore of Hudson Bay before migrating, or even perhaps breeds as far east as this point. It is, I think, not improbable that the extreme eastern limit of their breeding range will prove to be Hudson Bay rather than the 110th meridian, and that *M. griseus* in the breeding season is confined to the east and north of the Bay. In any case the occurrence of this form near Button Bay explains why they not uncommonly reach the Atlantic coast on migrations. — REGINALD HEBER HOWE, JR., *Longwood, Mass.*

***Tringa solitarius cinnamomeus* — A Correction.**—In the 'Preliminary List of the Birds of Okanogan County, Washington' (Auk, Vol. XIV, 1897, p. 172), an entry was incorrectly made under this head. The note should refer to the Spotted Sandpiper (*Actitis macularia*). — W. LEON DAWSON, *Columbus, O.*

European Lapwing in the Bahamas. — A Lapwing (*Vanellus vanellus*) was shot on Hog Island, Bahamas, B. W. I., in November, 1900; it was obtained from the shooter by Mr. H. H. Thompson of Nassau and sent to me for identification. The bird is in fairly good plumage; the primaries are not in any way worn. An Indian winter specimen in my collection is identical in plumage. — J. H. FLEMING, *Toronto, Ontario.*

Nesting of the Hairy Woodpecker near Washington, D. C. — A nest of the Hairy Woodpecker (*Dryobates villosus*) was examined by Mr. Edward J. Court and myself, near Mount Pleasant, Washington, D. C., April 9, 1900. It was situated in a cavity of an oak tree, some thirty-five feet up, and even at this early date contained five young, just hatched. The parent birds were present and were positively identified. The young were taken and preserved in formalin by Mr. Court and are still in his collection.

As instances of the breeding of this species in the District of Columbia are rare, this may be worthy of record. — JOHN W. DANIEL, JR., *Lynchburg, Va.*

The Vermilion Flycatcher in Florida. — On the 25th of March, 1901, late in the afternoon of a very damp, cloudy day, I shot a male Vermilion Flycatcher (*Pyrocephalus rubineus mexicanus*) on a marsh three miles from Tallahassee, Fla. The gaudy plumage of the bird attracted my attention and after several efforts to approach it close enough to shoot I finally took a chance shot at it on the wing, with the desired result. When first discovered it was sitting quietly on a barbed-wire fence, near the water, at short intervals launching out after some passing insect and invariably returning to the same perch. The bird was in excellent condition. Upon examination of the gizzard I found small black and green beetles therein. Is this not the first record of the occurrence of this species in Florida? I find no mention of it in Chapman's 'Handbook of Birds of Eastern North America,' nor in Cory's 'List of the Birds of Florida.' — R. W. WILLIAMS, JR., *Tallahassee, Fla.*

Bachman's Sparrow in Virginia. — In May, 1897, I took a pair of Bachman's Sparrows (*Peuceea aestivalis bachmani*), together with their nest and eggs, in this locality, which was the first instance of the occurrence of the species in the State. On April 27 of this year, while out collecting, I again met with the species. This time only one bird was seen and probably it had just arrived from the South. It was running among some grass tufts which grew alongside a fence leading into a body of small pines. On my nearer approach, it perched upon a grass tuft and was collected. It is now in my collection.

I learn from Mr. Rufus Barringer, of Charlottesville, Va., that the species is fairly common in Albemarle County, where Mr. Barringer has taken its nest and eggs; it seems to be a fairly abundant summer resident in this county (Campbell) where it nests in old fields, which are grown up in weeds and scrub pines. No doubt it also occurs and breeds in the southeastern part of the State, but its retiring nature and habit of skulking in the grass cause it to be very easily overlooked. — JOHN W. DANIEL, JR., *Lynchburg, Va.*

Piranga rubra in Massachusetts. — On May 12, 1901, while walking in Newton, I heard the call of the Summer Tanager and on going in pursuit soon came up with the bird. It was not in red plumage, but from a certain streaky, splashy, unsettled appearance, the orange-red being very bright in spots, I took it for an immature male. This, however, is a matter of very inexpert opinion. As to the identity of the bird as *Piranga rubra*, there could be no doubt. I had it under my glass (an eight-power Zeiss) for some time at short range, under the most favorable conditions; and while thus under observation it uttered again and again its very peculiar and thoroughly characteristic polysyllabic signal, with which I am fairly familiar from having heard it often at the South. According to Messrs Howe and Allen's 'Birds of Massachusetts' this may count as the sixth Massachusetts record. — BRADFORD TORREY, *Wellesley Hills, Mass.*

Bell's Vireo and the Sandhill Crane in New Hampshire. — Mr. Ned Dearborn of Durham, New Hampshire, has kindly given me permission to publish the following interesting notes:—

BELL'S VIREO (*Vireo belli*). On November 19, 1897, Mr. Dearborn was driving along a country road in Durham when his attention was attracted by a small bird which was hopping actively about among some poison ivy vines that had overrun a stone wall. As it looked unfamiliar he shot it. I have since examined it carefully and it proves to be a perfectly typical example of *V. belli*, a species not hitherto reported, I believe, from any part of New England.

SANDHILL CRANE (*Grus mexicana*). Mr. Dearborn tells me that he has recently purchased a Sandhill Crane of Mr. J. S. Turner, a taxidermist at Portsmouth, New Hampshire, who asserts that the bird was killed at Lovell's Pond, Wakefield, New Hampshire, in either 1896 or 1897, and brought to him in the flesh in fresh condition, but he has forgotten the name of the man who shot it nor can he remember the exact date. Mr. Turner has lived in Portsmouth many years and bears an excellent local reputation for reliability of statement. The specimen is mounted and was still encased in winding cotton, with the neck-wire projecting uncut through the top of the head, when Mr. Dearborn first saw it. With the Bell's Vireo above mentioned it is now preserved in the collection of the State Agricultural College at Durham. There are, as far as I can ascertain, no previous records of the occurrence of the Sandhill Crane in New Hampshire during the past century, although Belknap, writing in 1792 (*Hist. N. H.*, III, 1792, p. 169) mentions it without comment in his list of the birds of that State. — WILLIAM BREWSTER, *Cambridge, Mass.*

Bachman's Warbler (*Helminthophila bachmanii*) **Rediscovered near Charleston, South Carolina.** — I am pleased to announce the capture of an adult male of this interesting Warbler, by myself, near the village of Mount Pleasant, S. C., on the morning of May 15, 1901. I heard the song of what I was almost sure was a Parula Warbler singing lazily, and out of mere curiosity I went to locate the singer. I found the singer near the top of a sweet gum, but was unable to identify him positively as the morning was dark and cloudy. He flew from his perch to the low bushes, which formed the dense undergrowth, and was so restless and active that I could scarcely follow him except by the incessant song which he uttered at the rate of fifteen times a minute. At last I had a plain view of him as he sat upon a dead pine twig with his breast towards me, when I realized that it was the bird I had been looking for in this State for eighteen years. There was no mistake, as it was not the first Bachman's Warbler I had ever seen or shot. I watched the bird closely for thirteen minutes as I was sure his mate was setting or building a nest near at hand, as he kept singing in one locality and did not wander far off, but the temptation was too great to lose such a rare prize and I fired and killed the first Bach-

man's Warbler which has ever been taken in this State since Dr. Bachman took the type specimen near Charleston in July, 1833. After I had killed the bird I hunted for the female and nest for several hours, but was unsuccessful. In the afternoon I again visited the place and with the help of a friend, Lieut. J. D. Cozby, we searched for the female and nest, but could find neither. No doubt whatever exists in my mind that this bird was breeding and that his mate was incubating or else building a nest, as the sexual organs of the male proved that procreation was going on. This bird was certainly not a migrant as the migration of *wood-land* birds had passed. The *latest* migrant, the Gray-cheeked Thrush, was last noted May 13, when a single bird was seen. I am positive that I have heard this song nearly every summer in the same localities where the male was found, but I always keep out of such places after April 10 on account of the myriads of ticks and red bugs which infest them. Then, too, such places are simply impenetrable on account of the dense blackberry vines, matted with grape vines, fallen logs piled one upon another, and a dense growth of low bushes. In these jungles the rattlesnake is at home and the stoutest heart would quail.—ARTHUR S. WAYNE, *Mount Pleasant, S. C.*

Sprague's Pipit (*Anthus spragueii*) again on the Coast of South Carolina.

—It is with much pleasure that I am again able to record the capture of this interesting bird. The first specimen was recorded in 'The Auk,' Vol. XI, 1894, p. 80. I shot the specimen I now record on November 17, 1900.

When first seen the bird was mistaken for the Grass Finch, but upon approaching it too closely it flew upward in circles until it was nearly out of vision when I realized that it was a veritable Sprague's Pipit. I continued to watch this mere speck in the heavens hoping that it would again alight. Suddenly the bird pitched downward and alighted in a grassy field. I hastened to the spot and as it flushed I shot it. The specimen is an adult female, and, like the first one taken, is in fine unworn plumage.

This second specimen was captured within a quarter of a mile of the spot where I shot the first specimen on November 24, 1893. The capture of this second specimen seems to warrant the belief that this bird is something more than a mere wanderer or accidental visitor.—ARTHUR T. WAYNE, *Mount Pleasant, S. C.*

The Wheatear Not a Bird of Maine.—In a recent article, Dr. Stejneger (*cf.* Stejneger, Proc. U. S. Nat. Mus., Vol. XXIII, p. 473) cites the Wheatear (*Saxicola œnanthe*) as a bird recorded from Maine. Now as I have shown (*cf.* Knight, List of Birds of Maine, p. 141) there are no valid grounds for admitting this species to the avifauna of the State.

Careless and ignorant writers of the past have recorded the species in

question from Maine, owing to their failure to carefully read the title of Mr. Boardman's list, upon the authority of which they made their supposed records, and many other species as well as this one were cited upon the same grounds and their own ignorance of the exact boundary line between Maine and New Brunswick. Almost invariably Grand Menan birds have been given a place in New England bird lists, which shows the ignorance of geography exhibited by the authors.

I have in my possession a letter from Mr. Boardman in which he states that he has in his possession two specimens of the Wheatear, one taken at *Grand Menan, New Brunswick*, and the other taken on *Indian Island, New Brunswick*. This letter was written in 1896, and gives corrections of many other records made by geographical ignoramuses. Through Mr. Boardman's aid all these erroneous Maine records were straightened out and corrected and may be found in the 'List of the Birds of Maine.' — ORA W. KNIGHT, *Bangor, Me.*

Bird Notes from Pueblo Co., Colorado. — I recently spent a few weeks eighteen miles southwest of Pueblo, in which district I have passed ten winters. I was surprised to find the following birds which I have never known to winter there before: Jan. 7. A flock of Mourning Doves (*Zenaidura macroura*), about 40 in number, were seen feeding amongst some sunflowers. Jan. 8. A Western Meadowlark (*Sturnella m. neglecta*) was seen in company with some Mountain Bluebirds (*Sialia arctica*). Jan. 14. A pair of Sparrow Hawks (*Falco sparverius*) were observed. Jan. 12. Two Rock Wrens (*Salpinctes obsoletus*) were seen amongst some rocks not more than ten yards from where I was standing. — WILLOUGHBY P. LOWE, *Seward, Nebraska.*

Corrections to Birds of Parry Sound and Muskoka. — The following corrections should be made to my 'List of the Birds of the Districts of Parry Sound and Muskoka, Ontario,' published in the January number of the current volume of 'The Auk':

Page 35, No. 12, *Merganser serrator*. "Breeds in both districts" should read, Probably breeds in both districts.

" 35, " 13, *Lophodytes cucullatus*, requires the same correction.

" 44, " 180, *Harporhynchus rufus*. Mr. Kay informs me that Brown Thrashers are fairly common in Port Sydney.

" 45, " 188, *Regulus satrapa*. "An abundant winter resident" should read, Probably a winter resident.

" 45, " 189, *Regulus calendula*, "and winter" is a slip and should be struck out.

Regulus satrapa certainly occurs in Muskoka till late in December, but the testimony as to its being a winter resident is so conflicting that I have thought it best to qualify my reference to it.

I have been asked why the railroad lines on the map published with my paper should be so heavily shaded; I had hoped to be able to give some information about the influence of railroads on the migrations or settlement of birds in a new country, but found my data insufficient; however, I hope at some future time to have the aid of Mr. P. A. Tavernier, and be able to go into the matter more fully.—J. H. FLEMING, *Toronto, Can.*

RECENT LITERATURE.

Norton on Birds from Labrador.¹—Although only 32 species are here recorded, Mr. Norton has given an interest to his paper aside from the mere records of the 95 specimens obtained by the Bowdoin College Expedition of 1891. Of especial interest is his discussion of the case of *Fratercula arctica* in reference to the changes of plumage and of the form and markings of the bill with age. Mr. Norton has compared the American bird with specimens from Spitzbergen, Norway, the Orkney Islands, and other European localities, and finds that there is a slight but constant difference in the size of the bill between the European and American birds. He adds that the type locality of *Alca arctica* is clearly the "northern oceans of Europe," and that if the American bird be separated its proper name will be *Mormon glacialis* of Temminck. He also considers that the Spitzbergen form is separable from true *arctica*, and proposes for it the name *F. arctica naumanni*. The differences in the size and form of the bill are illustrated by a table of measurements and figures (pl. ii).

In reference to the Labrador Spruce Grouse, described by Bangs in 1899 as *Canachites canadensis labradorius*, Mr. Norton claims that it is the bird previously named *canace* by Linnæus in the 12th edition of the 'Systema Naturæ.' He concludes that the name *Canachites canadensis* (Linn.) must be restricted to the Spruce Grouse of Labrador and Hudson Bay, while "*Canachites canadensis canace* (Linn.) must be brought forward for the form inhabiting portions of Canada, the northern United States, and New Brunswick."

The species are annotated with reference to the phases of plumage they present, and record is also made of the occurrence of *Otocoris alpestris praticola* at Chateau Bay, its first record for Labrador.—J. A. A.

¹ Birds of the Bowdoin College Expedition to Labrador in 1891. By Arthur H. Norton. Proc. Portland Soc. Nat. Hist., Vol. II, pp. 139-158 and pl. ii. Published May 20, 1901.

Howe and Allen's Birds of Massachusetts.¹—Messrs. Howe and Allen in a special work of about 150 pages have given us an excellent summary of the bird fauna of Massachusetts. It is in most respects so well done that we wish we could give it unqualified approval. Under the heading 'Faunal Areas of Massachusetts' the topographical features of the State are described and the life zones are discussed at some length with, naturally, little that is new in relation to this feature of the subject. Then follows an 'Annotated List of the Species' authentically recorded as found in the State, numbering 362, followed by supplemental lists of the extirpated species, numbering 4, and extinct species, numbering 2, and a list of 15 introduced species, while 15 are entered under the heading 'Erroneously Recorded.' Two additional species are placed in an 'Apocryphal List.'

The annotations include not only the usual notes on the relative abundance and times of migration, but detailed records for special localities, so that "individuals working in restricted portions of this topographically varied State will have, in many cases, annotations applicable to their particular region." No species is admitted into the 'List' that has not an authentic record, great care having been taken in this respect to weed out all unauthenticated species. The 'List' has thus several unusual features of utility and trustworthiness. We regret, therefore, all the more that the authors have taken it upon themselves to rearrange the 'List' according to their own preference of sequence, so that the ordinary student, familiar with the arrangement of the A. O. U. 'Check-List,' will find himself greatly at sea with the new order in the present catalogue. We also regret to notice that the authors have made "various changes in orthography for the sake of consistency." In other words they have in numerous instances departed from the usual orthography in a number of bird names, without, apparently, any uniform system of emendation, but simply 'emending' as they happened to feel like it. Their emendations, therefore, while not radical or numerous, are sufficient to give a distasteful flavor to their work; also certain suggested changes in nomenclature have been adopted, some of which are of doubtful advisability. The innovations in these respects serve, however, to give the work a certain personality, which is doubtless pleasing to the authors.

A bibliography and an index complete the work, the bibliographical list being restricted, as said by the authors, to papers relating exclusively to Massachusetts birds. — J. A. A.

¹The | Birds of Massachusetts | By | Reginald Heber Howe, Junior, | and | Glover Morrill Allen | Members of the Nuttall Ornithological Club | and | Associate Members of the American Ornithologists' Union | Published by Subscription | Cambridge, Massachusetts | 1901. 8vo, pp. 1-154.

Morris's Birds of Springfield, Mass., and Vicinity.¹—Much credit is due Mr. Morris for his excellent list of 'The Birds of Springfield and Vicinity.' Several pages are given to a description of the physical features of the region in question, which embraces an area of about 25 miles' radius from Springfield, thus including the eastern slope of the Berkshire Hills and the isolated elevations known as Mount Tom, Mount Holyoke and Nono-tuck, in the valley of the Connecticut near Northampton.

The number of species listed as authentically recorded from the vicinity of Springfield is 255, while four others are mentioned as probably occurring; five additional introduced species are listed and two are stated to have become extirpated. The list is satisfactorily annotated and gives evidence of care and thoroughness in its preparation. Some 60 species are added to the list published by J. A. Allen in 1865, which had reference, however, to a much smaller area than the present list. We note no omissions or erroneous identifications, and commend the list as a valuable addition to the faunal papers relating to the ornithology of New England.—J. A. A.

McGregor's 'List of the Land Birds of Santa Cruz County, California.'²

—This list appears to be based primarily on an unpublished list of the birds of Santa Cruz County by Mr. W. Otto Emerson, and a published list of the birds of the same county by Mr. Henry Keading, supplemented by notes made in the field by Mr. T. J. Hoover and the writer. Also other published lists have been utilized. Mr. McGregor says: "The present list is of local interest only, but it is hoped that it may be of assistance to those engaged in faunal work and form a foundation for a future and more complete exposition of the Santa Cruz avifauna."

The description of the physical characteristics of the region is furnished by Mr. Walter K. Fisher. This is followed by the list proper, which includes 139 species, with pertinent annotations. Reference is duly made to previously published records, which are cited as authorities for statements in the text.—J. A. A.

Torrey's 'Everyday Birds.'³—Mr. Torrey's 'Everyday Birds' consists of a series of twenty-one chapters, seventeen of which relate to special birds or groups of birds, and four to more general subjects. The

¹The | Birds of Springfield | and Vicinity | By Robert O. Morris | Springfield, Mass. | Published by Henry R. Johnson | 1901.—8vo, pp. 54.

²A List of the Land Birds of Santa Cruz County California. By Richard C. McGregor. Pacific Coast Avifauna, No. 2, pp. 1-22, May 15, 1901.

³Everyday Birds | Elementary Studies | By | Bradford Torrey | With Twelve Illustrations in | Colors after Audubon, and | Two from Photographs | [Vignette] | Boston and New York | Houghton, Mifflin and Company | The Riverside Press, Cambridge | 1901.—Square 12mo, pp. 106. Price, \$1.00.

first seventeen sketches are brief summaries of the habits of the common or 'everyday birds' found throughout the eastern States. Of course, there is very little that is new in these pleasant notes, they deriving their chief interest and value from their authorship, being drawn up in the felicitous language of an author who always writes in a pleasing vein, whatever the subject.

The character of the other sketches in 'Everyday Birds' is indicated by their titles, namely: 'Birds for Everybody,' 'Winter Pensioners,' 'Watching the Procession,' and 'Southward Bound.' Although the plates reproduced are from poor chromo-lithographs, they are so far worse than the originals that in many cases they bear little resemblance to the birds they are intended to portray (see, for example, the Song Sparrow); besides, they border on the hackneyed, having been previously reproduced in various connections in recent years, but the text is so fresh and readable and is written in such sympathy with the subject that bird lovers will enjoy perusal of Mr. Torrey's sketches, and cannot consider their ornithological libraries complete without including 'Everyday Birds.'—J. A. A.

Proceedings of the Delaware Valley Ornithological Club.¹—This little brochure records the activity of this well known ornithological club for the year 1900, giving in addition to the minutes of the meetings held three short formal papers, as follows: (1) 'Some Observations on the Habits of Crossbills (*Loxia c. minor*) observed at Hanover, N. J., May 4-6, 1900,' by William B. Evans; (2) 'Recent Capture of the Ivory-billed Woodpecker (*Campephilus principalis*) in Florida'; by Charles J. Pennock; (3) 'Bird Language an index of Family Relationship,' by S. N. Rhoads. Mr. Pennock records the capture of three specimens of the Ivory-billed Woodpecker on the Gulf coast of western Florida, near Saint Marks, in April, 1899.

Mr. Rhoads calls attention to well known facts regarding the similarity of the notes and songs of closely related birds, and urges the importance of their resemblance as an indication of descent and relationship. The minutes of the meetings contain many interesting records of more or less rare birds, observed chiefly in Pennsylvania and New Jersey.—J. A. A.

Stejneger on the Wheatears (*Saxicola*) Occurring in North America.²

—The conclusions reached in this paper have already been stated in substance by Dr. Stejneger in the last issue of 'The Auk' (Vol. XVIII, pp.

¹Abstract of the Proceedings of the Delaware Valley Ornithological Club of Philadelphia. For the year 1900. Published by the Club. 1901. pp. 15.

²On the Wheatears (*Saxicola*) occurring in North America. By Leonhard Stejneger, Curator, Division of Reptiles and Batrachians. Proc. U. S. Nat. Mus., Vol. XXIII, No. 1220, pp. 473-481. March, 1901.

186, 187), so that little remains to be said in reference to the paper beyond the statement that the whole matter is discussed at length and the full synonymy given for the two forms of the Wheatear (*Saxicola ananthe* and *S. æ. leucorhoa*), both recognized by Dr. Stejneger as occurring in North America, the former in Greenland and northeastern North America, and the latter in Alaska. The distribution of both forms is carefully worked out, with tables of measurements showing the length of wing, etc. — J. A. A.

Bangs on a New Meadowlark from South America.¹ — Mr. Bangs describes as new a Meadowlark collected at San Sebastian and El Mamon in the Sierra Nevada de Santa Marta, Colombia, previously referred by him to *S. meridionalis* Sclater. The type locality of *S. meridionalis* is the Bogota region of Colombia, and the species is distinguished by its very long bill and dark coloration, while the new *S. magna paralis* is a pale race from the coast region of northeastern Colombia.

Brewster and Bangs on a New Bécard from Lower Uruguay.² — This species is based on specimens collected by Mr. Walter B. Barrows in 1880 and previously left unidentified, being recorded in Mr. Barrow's list of birds of Lower Uruguay, published in Vol. VIII of the 'Bulletin of the Nuttall Ornithological Club' and Vol. I of 'The Auk' as "*Pachyrhamphus*, sp. incog." Though nearest *polychropterus* it is considered quite distinct and is named *P. notius*. — J. A. A.

Shufeldt's 'Osteology of the Herodiones.'³ — As stated by the author in the Introduction, this is a reprint of Dr. Shufeldt's 'Osteological Studies on the Subfamily Ardeinæ,' published in 'The Journal of Comparative Medicine and Surgery' in 1899, to which is prefixed a summary of various recent classifications proposed by different authors for the group, supplemented by an account of the osteology of the Wood Ibis and other North American species of Ibises and the Spoonbill. He then gives his own views on the taxonomy of the suborder Herodiones, in which the North American families stand as in the A. O. U. 'Check-List,' he associating with them the Scopidæ, Balænicipidæ and Ciconiidæ, as has been commonly done by previous authors.

¹ A New Meadowlark from South America. By Outram Bangs. Proc. New Engl. Zoöl. Club, Vol. II, pp. 55, 56. Feb. 15, 1901.

² Description of a New Bécard from Lower Uruguay. By William Brewster and Outram Bangs. Proc. New Engl. Zoöl. Club, Vol. II, pp. 53, 54. Feb. 15, 1901.

³ Osteology of the Herodiones. By Dr. R. W. Shufeldt. Annals of the Carnegie Museum, Vol. I, pp. 158-249, pll. v-vi, and 43 text figures. April, 1901.

As already stated the new matter relates especially to the North American species of Ibises and Spoonbills. The paper is well illustrated with text cuts and two plates, only a few of which appear here for the first time. — J. A. A.

Chapman on a New Race of the Great Blue Heron.¹—From certain fragments of Herons that have been in the American Museum of Natural History for several years it was evident that a strongly marked undescribed form of the Great Blue Heron existed on the Northwest Coast, but it was not until recently that Mr. Chapman was able to secure proper material for its description. The Northwest Coast Heron is, as would be expected, very much darker and more deeply colored throughout than its relatives from other parts of North America. The type of the new form is from Queen Charlotte Island, and has been named by Mr. Chapman *Ardea herodias fannini*, in recognition of assistance rendered him in securing material for his paper by Mr. John Fannin, the well-known Director of the Victoria Museum.

In addition to describing the new form, Mr. Chapman calls attention to the status of *Ardea wardi*, commonly recognized as a distinct species, which Mr. Chapman very clearly shows intergrades with the northern *Ardea herodias*. Mr. Chapman considers that birds from the lower Rio Grande are not separable from the Florida birds which bear the name *wardi*. — J. A. A.

Grinnell on Two Races of the Red-breasted Sapsucker.²—The two forms here recognized are *Sphyrapicus varius ruber* and *S. v. daggetti*, new subspecies. The range of the former is given as the Northwest Coast region of North America, south to the Santa Cruz Mountains, while the new form is from Pasadena, California, the range of which is given as southern California and the west slope of the Sierra Nevada north at least to Amador County. Not only has Mr. Grinnell separated a new form of Red-breasted Sapsucker, but claims to have found evidence of intergradation between the eastern *S. varius* and *S. ruber* of the Pacific Coast, thus reverting to the view held by Mr. Ridgway in 1873, when all the forms of the genus *Sphyrapicus* were made subspecies of *S. varius*. — J. A. A.

¹ A New Race of the Great Blue Heron, with Remarks on the Status and Range of *Ardea wardi*. Bull. Am. Mus. Nat. Hist., Vol. XIV, pp. 87-90. April 15, 1901.

² Two Races of the Red-breasted Sapsucker. By Joseph Grinnell. The Condor, Vol. III, No. 1, p. 12. Separates issued Jan. 15, 1901.

Strong's 'Quantitative Study of Variation in the Smaller North American Shrikes.'¹—This is an attempt to employ statistical methods in the study of variation in a group of birds, and to apply the "precise criterion of species" of Davenport to a problem of bird classification. The group of birds chosen for this purpose is the Shrikes of the *Lanius ludovicianus* group. The material employed consists of 174 skins, which include only specimens properly available for such a purpose. Specimens showing mutilations or lacking data as to sex have been rejected.

The characters especially considered are length of wing, length of tail, length of bill, depth of bill, curvature of bill, and color. The methods employed are too abstruse for description in the present connection, and the interested reader is referred to Dr. Strong's paper for a clearer understanding of his manner of procedure. The paper is illustrated by numerous diagrams showing 'frequency polygons' for all the characters considered. In the quantitative determination of color the Bradley and Milton 'color-top' was employed, the mechanism and use of which is duly described. He considers that "one of the most important results reached is the determination of the relative variability of different characters in a group of birds representing geographical areas of considerable size."

Some of his remarks near the close of the paper are worthy of careful consideration. Speaking of the various races of the *L. ludovicianus* group, he says: "I believe that *migrans* is as worthy of recognition as *gambelli*. Whether it is profitable to encumber nomenclature with the names of these races, based on slight variations, is a question which is worthy of further consideration.

"The power of discriminating fine shades of color varies in different persons, and it can be highly developed by education. At the present time there is much activity among certain systematists in the production of new subspecies for geographical varieties, which long experience and special adeptness enable them to distinguish. A variation, no matter how slight, that can be correlated with geographical range is considered to warrant an addition to nomenclature; but the discovery and description of geographical races can be carried on almost *ad infinitum*." In regard to the use of the method of the 'precise criterion,' he says, he does not argue for its universal use, but believes that it is both "desirable and practicable to employ it in certain problems of taxonomy," such, for instance, as the one he has in hand. While the ordinary work of classification does not require the precision in treatment furnished by purely

¹ Contributions from the Zoölogical Laboratory of the Museum of Comparative Zoölogy at Harvard College. No. 121. A Quantitative Study of Variation in the Smaller North-American Shrikes. By R. M. Strong. With eight figures. American Naturalist, Vol. XXXV, April, 1901, pp. 271-298.

quantitative methods, he believes that the problems of race distinction "need the precision of the Precise Criterion."

"The contention," he continues, "that quantitative methods are less useful than those ordinarily employed because of the large amount of material required, is mischievous, for it argues that generalizations professing precision are possible by methods that are not precise," and the present tendency of hair splitting among certain ornithologists is timely and well warranted. If the hair splitters were compelled to adopt the laborious method of the 'precise criterion' system, it would doubtless prove a wholesome check upon their prolificness. In the matter of naming geographical forms which in many cases at least, will ultimately be relegated to the limbo synonymy.—J. A. A.

Stone 'On Moults and Alleged Colour-change in Birds.'¹—This paper is a reply to some criticisms of Mr. Stone's paper on moults, published in the Proceedings of the Philadelphia Academy in 1896, by Mr. J. L. Bonhote in 'The Ibis' for October 1900. Mr. Stone maintains an admirable attitude in reference to the advocates of direct change of pigment in mature feathers, and his statements should do much toward encouraging a careful consideration of the subject by his critics. Mr. Stone says: "It has now been *demonstrated* that at least many (and apparently all) individuals of every species of bird in Eastern North America which undergoes a spring change of plumage accomplish that change by a moult. If the same thing is not true of European birds, we have certainly a strange state of affairs." Mr. Stone very justly complains that the papers of Mr. Bonhote and others who defend color change are lacking in respect to data as to the condition of the specimens examined.

Mr. Stone's paper, in fact, is a brief summary of the results attained by investigations on this side of the Atlantic in reference to how birds acquire the colors of the nuptial dress, and of the methods employed in these investigations. It would seem that this candid statement of the case should lead to careful consideration of the evidence supposed to be antagonistic to the results obtained by extended and careful study of the subject by American ornithologists.—J. A. A.

Seton-Thompson and Hoffmann's 'Bird Portraits.'²—'Bird Portraits' consists of 20 half-tone reproductions of drawings by Ernest Seton-Thompson, with descriptive text by Mr. Hoffmann. The birds whose portraits are here given consist of the following species: Song Sparrow, Flicker,

¹ On Moults and Alleged Colour-change in Birds. By Witmer Stone. The Ibis, April, 1901, pp. 177-183.

² Bird Portraits | By Ernest Seton-Thompson | With Descriptive Text | By Ralph Hoffmann | Boston | Ginn & Company | The Athenæum Press | 1901 —4to, pp. 40, with 20 half-tone plates.

Brown Thrasher, Barn Swallow, Chimney Swift, Kingbird, Baltimore Oriole, Wood Thrush, Scarlet Tanager, Rose-breasted Grosbeak, Redstart, Ruby-throated Hummingbird, Bob-white, Goldfinch, Blue Jay, Brown Creeper, Butcher Bird, Golden-crowned Kinglet, Herring Gull, and Chickadee.

The excellence of the drawings, although not here published for the first time, is a sufficient *raison d'être* for the book; their fidelity to nature and delicacy of touch will render 'Bird Portraits' a never failing source of pleasure. The accompanying text by Mr. Hoffmann consists of brief well written biographies of each subject, giving the characteristics of the birds portrayed. While not sufficiently comprehensive to serve as a manual of the birds of any particular locality, the work is one that will prove a favorite with all nature lovers who can appreciate birds and art. — J. A. A.

Gould's 'Louis Agassiz.'¹ — Although not especially an ornithologist, Louis Agassiz, the great naturalist and the great teacher, has an interest and charm for all students of nature. In this little volume of 150 small pages we have an admirably condensed account of his life,— brief, authentic and fascinating. Although of Europe by birth, he was an American by adoption. Apropos of this, the author says: "The most valuable legacies of scientific men are left to the whole world, with no restraint of place and little of time. But there are a few gifts which they leave, as other men leave them, to one country or to one community. And whatever in Agassiz's gift was necessarily thus restricted we find to-day in America, not in Europe. At Cambridge stands his Museum; at twenty places on our coasts are the summer schools which have succeeded to his Penikese; and in the American world is the transmitted enthusiasm which passes from teacher to scholar,— the fire that may light up a whole generation which has forgotten the source where it was kindled."

At the present time when summer schools and marine laboratories for teachers are taken as a matter of course, it may be well to recall the fact that the first of the series was that established by Agassiz on the Island of Penikese in 1872. Agassiz's method of teaching natural history was not through books nor by memorizing the observations of others, but by direct appeal to nature and the cultivation of the powers of observation. This method was an innovation, and a most happy one, as the work of the students trained under his direction has abundantly demonstrated. The general public, and especially all lovers of nature, should feel indebted to Miss Gould for her excellent epitome of the life of the great teacher. — J. A. A.

¹The Beacon Biographies of Eminent Americans. Edited by M. A. De Wolfe Howe. Louis Agassiz. By Alice Bache Gould. Boston: Small, Maynard & Company, 1901.

Ridgway on 'New Birds of the Families Tanagridæ and Icteridæ.'¹—

This is the seventh of Mr. Ridgway's series of papers describing new forms of American birds, the preceding six having been published in 'The Auk,' Vols. XV-XVII (1898-1900). In the present paper Mr. Ridgway characterizes of the family Tanagridæ one new genus, *Iridophanes* (type, *Dacnis pulcherrima* Sclater), and one new species and five new subspecies belonging to other genera of the family. Of the family Icteridæ he characterizes two new genera, *Pseudagelaius* (type, *Agelaius imthurni* Sclater), and *Xanthopsar* (type, *Oriolus flavus* Gmelin), and one new species and eight new subspecies. Four of the subspecies occur in the United States, namely, (1) *Icterus cucullatus sennetti*, from the Lower Rio Grande Valley; (2) *Agelaius phænicus fortis*, ranging during migrations from Montana and the Indian Territory to and including the Rocky Mountains and southward to Arizona and northern Chihuahua; (3) *Agelaius phænicus neutralis*, ranging from the Great Basin Region of the United States northward to eastern British Columbia and southward to northern lower California; (4) *Agelaius phænicus caurinus*, from the Northwest Coast District, ranging from British Columbia to northern California.

Unfortunately Mr. Ridgway has adopted the name *Scaphidurus* Swainson for the Boat-tailed Grackles, named *Megaquiscalus* by Cassin, Mr. Ridgway overlooking the fact that *Scaphidurus* is a pure synonym of *Quiscalus*, Swainson supposing *Quiscalus* to be untenable on account of its supposed prior use in botany.—J. A. A.

Buri on the Anatomy and Relations of the Swifts.¹—

Dr. R. Buri, of Bern, has recently published a lengthy paper² giving the results of an extended study of the wings of *Cypselus melba* and others of the Coracornithes; special attention has been given to the nerves of the wings, this portion of the anatomy having been worked out in the most painstaking manner. Dr. Buri's observations all go to confirm the correctness of the view that the nearest allies of the Swifts are the Hummingbirds, but they also point to a somewhat closer alliance with the Colies than has been generally suspected and to a more distant alliance with the Caprimulgidæ. Unfortunately Dr. Buri had no specimen of *Macropteryx*, for it is quite probable that nervation of this generalized and interesting genus shows

¹ New Birds of the Families Tanagridæ and Icteridæ. Proc. Wash. Acad. Sci., III, pp. 149-155. April 15, 1901.

² Zur Anatomie des Flügele von *Micropus melba* und einigen anderen Coracornithes; zugleich Beitrag zur Kenntniss der systematischen Stellung der Cypselidæ. Von Dr. Rud. O. Buri, Prosektor am veterinär-anatomischen Institut der Universität Bern. Mit 6 Tafeln. Abdruck aus der Jenaischen Zeitschrift für Naturwissenschaft. Bd. XXXIII, N. F. XXXI, 1900. Jena, Gustav Fischer, 1900.

affinities with the Goatsuckers. Dr. Buri's paper is of interest from the fact that it shows that the minute details of the anatomy of the Swifts and Hummingbirds bear out the conclusions based on their grosser anatomy and external characters. — F. A. L.

Herrick's 'The Home Life of Wild Birds.'¹—Mr. Herrick has succeeded in adding one more to the many attractive books illustrated by bird photography, and through the use of certain new methods, which he duly describes, has succeeded in bringing together a very large number of wonderfully striking and pleasing pictures of bird life. He describes at some length his methods, which are original and novel, securing pictures from life at such close range that the details are given with great distinctness. The work embraces fourteen chapters, the headings of which very clearly suggest the character and scope of the work. These chapter headings are as follows: (1) 'A New Method of Bird Study and Photography'; (2) 'Illustrations of the Method: The Cedar Bird, the Baltimore Oriole, the Redwing Blackbird and the Kingbird'; (3) 'Tent and Camera: The Tools of Bird-Photography'; (4) 'The Robin at Arm's Length, A Study of Individuality'; (5) 'The Cedar Bird'; (6) 'Red-eyed Vireos'; (7) 'The Nest-hole of the Bluebird'; (8) 'Minute Observations on Catbirds'; (9) 'The Rearing of the Night Hawk'; (10) 'The Kingfishers and their King Row'; (11) 'Care of Young and Nest'; (a) 'Brooding and Feeding Young (b) Cleaning the Nest'; (12) 'The Force of Habit'; (13) 'Fear in Birds and Taming Wild Birds without a Cage.' In these chapters he takes the reader into his confidence and reveals to him the secrets of his success. Certain families of birds, as for example, of the Kingbird, Cedar Bird, Red-winged Blackbird, etc., are vividly placed before the reader throughout the nesting period, and the method of their daily life is recorded with great detail, so that we have the life histories of a series of our common birds illustrated from the time of hatching to the period when they are able to shift for themselves.

Mr. Herrick's 'The Home Life of Wild Birds' is a most valuable addition to the literature relating to bird photography and the habits of birds during the interesting period of rearing the young. — J. A. A.

Heck's 'Living Pictures of the Animal Kingdom.'²—As the explanatory title indicates, the subject of the present volume is not exclusively

¹ The Home Life of Wild Birds | A New Method of | the Study and | Photography of Birds | By | Francis Hobart Herrick | — | With 141 Original Illustrations From Nature | By the Author | — | G. P. Putman's Sons | The Knickerbocker Press | New York and London | 1901—4to, pp. xix + 148. Photogravure frontispiece and 140 half-tone text figures.

² Living Pictures of the Animal Kingdom from Instantaneous Photographs taken of the most magnificent specimens in Zoological Gardens. Edited with

ornithological, but birds of varied and striking types form a prominent feature of the illustrations and text. The illustrations are excellent reproductions of photographs from life and are exceedingly attractive and instructive, in many instances there being little to suggest that the subjects were captives. The text is brief, but sufficient to give the reader a good idea of the bird or mammal illustrated, its leading traits, affinities and distribution being generally indicated.

The birds include Laughing and other Gulls, various species of Herons, Storks, Flamingoes, Cranes, Geese, Pelicans, Hawks and Eagles. The mammals, for the most part, are the large and more striking forms of ruminants. The work will be of especial interest and value to artists and taxidermists. There is apparently nothing, however, to indicate that the work is a translation and republication of a work of similar title recently issued in Berlin, but the fact of its previous appearance in German will not make it any the less welcome or valuable to English readers. — J. A. A.

Mrs. Bignell's 'Mr. Chupes and Miss Jenny.'¹ — Mrs. Bignell's little book is dedicated "To the Audubon Societies, in Recognition of Their Work in the Cause of Bird Protection," and this dedication in a measure gives the key to the book. It is not only a biography of two Robins that came into the author's possession, but contains incidentally comment on a wide range of topics connected more or less with the relation of man to animate nature. The first captive, 'Mr. Chupes,' was an unfortunate baby robin that had fallen from the nest, and had been somewhat injured by the fall, and afterward reared and cared for by its kind captor, with whom it lived for five years, displaying a surprising degree of affection for its mistress, and a marvelous amount of intelligence under varied conditions of environment. The second of the two pets, 'Miss Jenny,' was rescued from a baker's establishment, in a very bedraggled and dilapidated condition. Under more congenial surroundings and intelligent care she soon recovered her health and a proper, tidy appearance, and for years was the inseparable companion of 'Mr. Chupes.' The history of these two pet birds is a revelation of the mental traits and capabilities of two individuals of the same species as diverse in temperament and behavior as would be looked for in birds of the most distant genetic relationship. Although Mrs. Bignell's history of the behavior of these two birds under

Explanatory Remarks by Dr. L. Heck, Director of the Berlin Zoological Gardens. The Saalfield Publishing Co., New York, Akron, O., and Chicago. Oblong folio, pp. 196, illustrated title page and about 200 half-tone illustrations in the text.

¹ Mr. Chupes and Miss Jenny | The Life Story | of Two Robins | By
| Effie Bignell | New York | The Baker and Taylor Company | 33-37 East
Seventeenth Street, New York, 1901 | 12mo, pp. 1-250, with 8 full-page
half-tone plates.

such, as we might say, unnatural conditions, forms a good-sized book, the author is such a keen and intelligent observer, and has made such excellent use of her opportunities for the study of bird psychology, that the record is fascinating from beginning to end, and is marked by wholesome and elevating sentiment. Her theme is the thread on which is hung much that relates to cognate matters, all told in a style simple and effective. 'Mr. Chupes and Miss Jenny' is, therefore, a unique and important contribution both to popular and scientific ornithology. — J. A. A.

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CORRESPONDENCE.

The So-called Cancelled Fasciculus of Cassin's Illustrations.

EDITORS OF 'THE AUK':—

Dear Sirs:—In the Bibliographical Appendix to Coues's 'Birds of the Colorado Valley,' there appears this citation: "1853. CASSIN, J. Untitled fasciculus of his Illustrations of the Birds of Texas, California," etc. Then follow these notes: "The first part issued of this work was a trial or specimen number, which was cancelled as unsatisfactory, and is therefore scarcely citable. Several bound copies, however, are extant; they bear no title, date, or imprint, and are not paged. They consist of 15ll. of text and 5 pll., representing *Xanthura luxuosa*, *Melanerpes formicivorus*, *Chamaea fasciata*, *Lophophanes atricristatus*, and *Crytonyx masena*. See 1853-55 and 1856, Cassin, J."

There is a copy of the fasciculus in the Library of the Academy of Natural Sciences of Philadelphia, and an examination will show that the preceding citation and notes are erroneous in almost every respect. To begin with, the fasciculus has a paper cover bearing the following title: 'Illustrations | of the | Birds of California, Texas, | and | British and Russian America. | Intended to comprise all the species of North America except Mexico, not figured by | former American authors, and to serve as | a supplement | to the octavo edition of | Audubon's Birds of America. | By | John Cassin, | . . . and | Henry L. Stevens, | . . . To be completed in thirty numbers, published monthly. | Philadelphia: | King & Baird, Printers, No. 9 Sanson Street. | 1852.

From this it will be seen that not only is there a title, but its wording is quite different from Cassin's 'Illustrations,' (1853-55); that the work has a joint authorship; and that the date of publication is 1852.

The pages are numbered at the bottom, each species separately, *i. e.*, the text relating to the Mexican Jay is numbered 1-4, and the synopsis of the genus *Parus*, 1-5. In the later work six pages are devoted to the Mexican Jay, while the synopsis of the genus *Parus* is reduced to four, showing that the text was considerably changed in this issue.

It is not likely that the fasciculus under consideration was cancelled as unsatisfactory, at least as far as the plates are concerned, as they are superior to those of the later work, and were drawn and lithographed by Henry L. Stephens; those in the later work (1853-55) were drawn by Geo. G. White and Wm. E. Hitchcock, and lithographed, printed and colored by J. T. Bowen. The earlier plates, five in all, are not numbered, and if numbered according to their insertion would compare as follows with those in the first part of the later work:

*Cassin and Stevens, 1852.**Cassin, 1853.*

- | | |
|---|--|
| [1] <i>Cyanocorax luxuosus</i> (Lesson). | 1. <i>Cyanocorax luxuosus</i> (Lesson). |
| [2] <i>Melanerpes formicivorus</i>
(Swainson). | 2. <i>Melanerpes formicivorus</i>
(Swains.). |
| [3] <i>Chamæa fasciata</i> (Gambel). | 3. <i>Lophophanes atricristatus</i>
(Cassin). |
| [4] <i>Lophophanes atricristatus</i>
(Cassin). | 4. <i>Cyrtonyx Massena</i> (Lesson). |
| [5] <i>Crytonyx Massena</i> (Lesson). | 5. <i>Larus Heermanni</i> (Cassin). |

The present copy bears in pencil, in Cassin's handwriting, this note :
"Suppressed number."

It is evident that this "suppressed number" must be cited as a separate work, distinct from Cassin's 'Illustrations, etc.' (1853-55), as it differs in so many respects from it, and has a joint authorship. The suppression of a work does not mean that it is not citable as long as one or more copies exist in a place of reference.

WILLIAM J. FOX,

Academy of Natural Sciences of Philadelphia.

NOTES AND NEWS.

BARON EDMOND DE SÉLYS LONGSCHAMPS, whose death at the age of 87 was announced in the last number of this journal (XVIII, p. 219) was born at Paris, May 25, 1813, though a descendant of an eminent family of Liège, Belgium, of which country he was not only a citizen but where he was prominent in political affairs, being successively councilor, deputy, senator, vice-president, and finally president of the Belgian Senate. His scientific writings cover a wide field, he being a recognized authority on the Odonata (dragon-flies), and wrote extensively on mammals and birds. His first paper, on the birds and insects of Belgium, was published in 1831, when he was eighteen years of age, and was followed by a long series of contributions to scientific literature, including reviews and briefer notices as well as many original monographs, for the most part relating to Vertebrates. In 1839 he contributed a notable paper to the 'Revue Zoologique' on the classification of Passerine birds, and in 1844 appeared his 'Faune Belge,' part one being devoted to the Vertebrate Fauna of Belgium, birds occupying pp. 45-108. A most noteworthy contribution to mammalogy was his 'Etudes de Micromammalogie,' published in 1839,—a work so much in advance of the time that its great merits were

not then duly appreciated, but in these days of minute discrimination of characters it takes the high rank justly its due. Baron Sélys was thus eminent both as a naturalist and as a statesman, and distinguished among his fellow citizens for his courtesy and sincerity of character.

•BARBARA JORDAN, daughter of President Jordan of Stanford University, died at Palo Alto September 13, 1900. She was born Nov. 10, 1891, being just as old as the University itself. The little girl was a born ornithologist. Before any one had thought of teaching her, she knew all the forest trees of the Sierras by name and the birds of the university campus by their songs. Afterwards she extended this knowledge to an acquaintance with all the song birds of the United States as represented in her little collection. Her books on birds have been made the nucleus of a large library of ornithology presented to Stanford University as the "Barbara Jordan Library of Birds."

TO WILLIAM MACGILLIVRAY, the well-known author of a 'History of British Birds,' and as the acknowledge coadjutor of Audubon in the preparation of his great work on American birds, and hence an especially interesting personage to American ornithologists, a memorial tablet was unveiled at Marischal College, Aberdeen, Scotland, with appropriate commemorative addresses by Dr. John Forbes White, Principal Marshall Lang, and others, some of whom had been his pupils at Aberdeen. High tributes were paid to his moral worth and high scientific attainments in a wide field of research, and especially to the ability with which he filled the Chair of Natural History in Marischal College and University from 1841 to 1852, when at the early age of fifty-six he was laid to rest in the New Calton Burying Ground of Edinburgh. Said Dr. White, in his presentation address: "Had sufficient money been at our disposal, we should have adopted the suggestion of Sir John Struthers and founded a gold medal in MacGillivray's memory in the University. But, failing in this, we have had to content ourselves with a monument at his grave by Mr M'Glashen, of Edinburgh, in fine Peterhead granite, about nine feet high. The design would have pleased MacGillivray. Near the foot is a good-size golden eagle, the royal bird loved by the ornithologist, the extinction of which in the Scottish Highlands he deeply lamented. It fittingly suggests the lofty aspirations of MacGillivray. The eagle is finely executed in bronze by Mr. D. W. Stevenson, R. S. A., from a splendid drawing of the bird by MacGillivray himself, now the property of the British Museum. The monument is adorned with Celtic ornament, which befits the tombstone of our naturalist, who held that Gaelic was the most beautiful language in the world. In the center is a fine Iona Cross, symbol of the earnest faith of the reverent MacGillivray. The bronze tablet is made by 'The Guild of Handicraft' of London, from the design of Mr. Ashbee, whose work is well known. It is adorned with artistic representations of

some of the flowers and animals which were the friends of the man whose memory we wish to honor. The inscription reads: 'In memory of William MacGillivray, M. A., LL. D., born 1796, died 1852. Author of a 'History of British Birds' and other standard works in Natural Science; Professor of Natural History and Lecturer on Botany in Marischal College and University from 1841 to 1852. Erected in 1900, together with a monument at his grave in New Calton Cemetery, Edinburgh, by his relatives and surviving students, who affectionately cherish his memory, and by others desirous of doing honor to his character as a man and to his eminence as a naturalist.'

MacGillivray is best known as an ornithologist, but he was an authority, and published extensively, on botany, geology and conchology. That he was much in advance of his times in his liberality of thought is shown by Professor Trail's address, in which he quotes the following from MacGillivray's 'Manual of Botany,' published in 1840: "There is nothing absolutely certain as to species, much less as to the groups into which they are disposed, as genera, families, orders, tribes, and the like. We merely agree to consider as species individual plants which closely resemble each other in the structure and form of their organs. Such species, however, often pass into each other by gradations, which render it impossible to draw a line of demarcation, and thus all species are more or less arbitrary. We know from observation that all assumed species undergo changes from climate, cultivation, and other influences; . . ." And this nearly twenty years before the appearance of Darwin's 'Origin of Species'! To him," says Prof. Trail, "Nature study in schools would have brought delight as the promise of a better state of education. I think that of him, as of few men can be said: 'Blessed are the pure in heart, for they shall see God.'"

DR. W. L. RALPH, Honorary Curator of the Section of Birds' Eggs in the U. S. National Museum, it has been officially announced, has undertaken the continuation of the work entitled 'Life Histories of North American Birds,' begun by the late Major Charles Bendire. It may be added in this connection that Dr. Ralph desires to obtain as much information as possible regarding the life-history of each species, and any pertinent facts of original observation will be of particular interest to him, especially in so far as they relate to those species which in the Check-list of the American Ornithologists' Union are numbered from 514 to 635 inclusive.

It is hardly necessary to say that the great task left unfinished by Major Bendire has fallen into good hands, and will, we trust, be carried forward to completion in due time. Dr. Ralph is especially qualified for the work, and is worthy of every assistance that can be rendered him.

TENTH SUPPLEMENT TO THE AMERICAN ORNITHOLOGISTS' UNION CHECK-LIST OF
NORTH AMERICAN BIRDS.

THE Ninth Supplement to the A. O. U. Check-List was published in January, 1899 (*Auk*, XVI, pp. 97-133). The present Supplement gives a report of the action of the Committee on questions affecting the Check-List that have arisen during the period from January, 1899 to April, 1901, and on many of the cases deferred for final action at the 1899 meeting of the Committee.

Owing to lack of material, it was found necessary to defer final action on many questions, as shown in the subjoined list of deferred cases. All questions affecting the status of genera and subgenera were also deferred. While the Committee has raised, in previous Supplements, a number of the groups recognized originally as subgenera in the Check-List to the rank of genera, and is of the opinion that still others should be thus raised, it seemed better to defer this phase of the subject till the whole matter can be taken up in its entirety.

As the 10th edition of Linnaeus's '*Systema Naturæ*' is adopted as the starting point of binomial nomenclature, it is not considered necessary to notice the many discrepancies due to the adoption of the 12th edition of this work as the starting point, as in Sharpe's '*Hand-List of Birds*' (Vols. I and II) and elsewhere, nor to consider cases already settled by the Committee after careful consideration, unless new evidence is brought forward adverse to the Committee's ruling.

The members of the Committee present at the session were Allen, Brewster, Merriam and Ridgway; the session was held in Washington, April 10-18, 1901. Much of the work of the Committee, however, had been previously apportioned among the members, so that nearly all the questions of nomenclature and the status of many of the recently described species and subspecies had been carefully investigated by different members of the Committee in advance of the session.

As in the previous Supplements, the numbers at the left of the

scientific names furnish the means of easy collation of the Supplement with the Check-List. The interpolated species and subspecies are numbered in accordance with the provision made therefor in the Code of Nomenclature (p. 14, last paragraph).

Committee	{	C. HART MERRIAM, <i>Chairman</i> .
		J. A. ALLEN.
		CHARLES F. BATCHELDER.
		WILLIAM BREWSTER.
		CHARLES B. CORY.
		WALTER FAXON.
		ROBERT RIDGWAY.

I. ADDITIONS TO THE CHECK-LIST, AND ACCEPTED CHANGES IN NOMENCLATURE.

5. **Colymbus dominicus** (LINN.). This becomes
Colymbus dominicus brachypterus CHAPMAN.

Colymbus dominicus brachypterus CHAPMAN, Bull. Am. Mus.
Nat. Hist. XII, 1899, 256.

GEOG. DIST.—Southern Texas and Lower California, south to Panama.

- 86c. **Fulmarus glacialis rodgersi** (CASS.). This becomes

- 86.1. **Fulmarus rodgersi** CASS.

Cf. SALVIN, Cat. Bds. Brit. Mus. XXVI, 1898, 486.

126. **Pelecanus fuscus** LINN. This becomes

Pelecanus occidentalis (LINN.).

Pelecanus onocrotalus occidentalis LINN. S. N. ed. 12, I,
1766, 215.

Pelecanus occidentalis RICHMOND, Auk, XVI, April, 1899,
178.

As stated by Richmond (*l. c.*) the name *fuscus* was not used by Linnaeus in a nomenclatural sense and has no standing.

GENUS **AJAJA** REICH. (Check-List, 2d ed. p. 66). The original spelling is **Ajaia**, which form of the word should replace *Ajaja* in the Check-List.

194a. **Ardea herodias fannini** CHAPMAN.

Northwest Coast Heron.

Ardea herodias fannini CHAPMAN, Bull. Am. Mus. Nat. Hist. XIII, 1901, 87.

[B—, C—, R—, C—.]

GEOG. DIST.—Queen Charlotte Islands and coast region of British Columbia.

210.1. **Rallus crepitans waynei** BREWSTER.

Wayne's Clapper Rail.

Rallus crepitans waynei BREWSTER, Bull. N. Engl. Zool. Club, I, 1899, 50.

[B—, C—, R—, C—.]

GEOG. DIST.—South Atlantic coast, from North Carolina to Florida.

[269.1.] **Eudromias morinellus** (LINN.).

Dotterel.

Charadrius morinellus LINN. S. N. ed. 10, I, 1758, 150.

Eudromias morinellus BREHM, Vögel Deutschl. 1831, 545.

[B—, C—, R—, C—.]

GEOG. DIST.—Northern Europe and northern Asia, south in winter to the Mediterranean and northern Africa. Accidental at King Island, Alaska (*cf.* Stone, Proc. Acad. Nat. Sci. Phila. 1900, 22).

283.1. **Arenaria morinella** (LINN.).

Ruddy Turnstone.

Tringa morinella LINN. S. N. ed. 12, I, 1766, 249.

Arenaria morinella W. PALMER, Fur Seals and Fur Seal Isl. N. Pac. Oc. III, 1899, 408, 412.

[B 515 *part*, C 406 *part*, B 509 *part*, C 598 *part*.]

GEOG. DIST.—Arctic America, from the Mackenzie River eastward, southward in migration, chiefly coastwise, to Patagonia and the Falkland Islands.

The range of *A. interpres* thus becomes restricted to the Old World, Greenland, and western Alaska.

[B 460, *part*, C 380, *part*, R 472, *part*, C 555, *part*.]

298a. **Canachites canadensis labradorius** BANGS.

Labrador Spruce Grouse.

Canachites canadensis labradorius BANGS, Proc. N. Engl. Zool. Club, I, 1899, 31.

[B 460 *part*, C 380 *part*, R 472 *part*, C 555 *part*.]

GEOG. DIST.—Labrador.

298b. **Canachites canadensis osgoodi** BISHOP.

Alaska Spruce Grouse.

Canachites canadensis osgoodi BISHOP, Auk, XVII, April, 1900, 114.

[B—, C—, R—, C—.]

GEOG. DIST.—Upper Yukon region and thence northwest to Prince William Sound and Cook Inlet.

304a. **Lagopus leucurus altipetens** OSGOOD.

Southern White-tailed Ptarmigan.

Lagopus leucurus altipetens OSGOOD, Auk, XVIII, April, 1901, 180.

[B 469 *part*, C 388 *part*, R 476 *part*, C 570 *part*.]

GEOG. DIST.—Southern Rocky Mountains (Colorado, New Mexico, etc.).

Lagopus leucurus is the northern form, occurring in the Northwest Territory, Alaska, etc.

[314.1.] **Columba squamosa** BONN.

Columba squamosa BONNATERRE Tabl. Enc. Méth. I, 1790,
234.

[B—, C—, R—, C—.]

GEOG. DIST. — West Indies; accidental at Key West, Florida
(cf. Atkins, Auk, XVI, July, 1899, 272; recorded as *Columba*
corensis).

GENUS **PSEUDOGRYPHUS** RIDGWAY (Check-List, 2d ed.,
p. 124). This becomes

GENUS **GYMNOGYPS** LESSON.

Gymnogyps LESSON, Écho du Monde savant, sér. 2, VI, 1842,
1037. Type, *Vultur californianus* SHAW.

Pseudogryphus is thus a synonym of *Gymnogyps* (cf. RICHMOND,
Condor, III, 1901, 49), and No. 324 will therefore stand as

324. **Gymnogyps californianus** (SHAW).

Vultur californianus SHAW, Nat. Misc. IX, 1797, pl. ccci.

Gymnogyps californianus LESSON, Écho du monde savant, sér.
2, VI, 1842, 1037.

343. **Buteo latissimus** (WILS.). This becomes

Buteo platypterus (VIEILL.).

Sparvius platypterus VIEILL. Encycl. Méthod. Ornithol. III,
1823, 1273.

Buteo platypterus FAXON, Auk, XVIII, April, 1901, 218.

Falco latissimus dates from Ord, 1824, instead of from
Wilson, 1812, as formerly supposed, and is thus antedated
by one year by *platypterus* Vieill. (Cf. FAXON, Auk,
XVIII, April, 1901, pp. 217, 218.)

368b. **Syrnium nebulosum helveolum** BANGS.

Texas Barred Owl.

Syrnium nebulosum helveolum BANGS, PROC. N. ENGL. ZOÖL. CLUB, I, 1899, 31.

[B —, C —, R 397*a part*, C 477 *part*.]

GEOG. DIST. — Southern Texas.

375*a*. ***Bubo virginianus pallescens* STONE.**

Western Horned Owl.

Bubo virginianus pallescens STONE, AM. NAT. MARCH, 1897, 236.

This is a new name for *Bubo virginianus subarcticus* (Hoy) of the Check-List, *subarcticus* being a synonym of *B. v. arcticus* (Swains.). Cf. Eighth Suppl., Auk, XIV, 1897, 134.

GENUS **RHYNCHOPSITTA** BONAP.

Rhynchopsitta BONAP. REV. ET MAG. ZOOL. VI, 1854, 149.
Type, *Macrocerus pachyrhynchus* SWAINS.

382.1. ***Rhynchopsitta pachyrhyncha* (SWAINS.).**

Thick-billed Parrot.

Macrocerus pachyrhynchus SWAINS. PHIL. MAG. I, 1827, 439.
Rhynchopsitta pachyrhyncha BONAP. REV. ET MAG. ZOOL. VI, 1854, 149.

GEOG. DIST. — Central Mexico, northward, casually, to the Chiricahua Mountains. (Cf. Lusk, Condor, II, 1900, 129.) Formerly No. 16 of the Hypothetical List (Check-List, 2d ed., p. 330).

401*a*. ***Picoides americanus alascensis* (NELSON).** This becomes

***Picoides americanus fasciatus* BAIRD.**

Picoides americanus var. *fasciatus* BAIRD, COOPER'S BDS. CAL. I, 1870, 385.

Picoides a. alascensis proves to be a synonym of *P. a. fasciatus*, of earlier date. (Cf. BANGS, Auk, XVII, April, 1900, 128, 132.)

413. **Colaptes cafer** (GMEL.). This becomes

Colaptes cafer collaris (VIGORS).

Colaptes collaris VIGORS, Zool. Journ. IV, 1829, 354.

Colaptes cafer collaris NELSON, Auk, XVII, April, 1900, 123.

The true *Colaptes cafer* is restricted to the tableland and mountains of Mexico (cf. NELSON, *l. c.*).

- 429.1. **Trochilus violajugulum** JEFFRIES.

This becomes No. 16.2 of the Hypothetical List, on the probability that the still unique type was a hybrid or an otherwise abnormal specimen.

GENUS **AMAZILIA** REICH. (Check-List, 2d ed., p. 177).

This becomes

GENUS **AMIZILIS** GRAY.

Amizilis GRAY, List Gen. Bds. 1840, 14. Type (by elimination) *Orthorhynchus amazili* LESS.

Amizilis Gray (1840) antedates *Amazilia* Reich. (1849).

Cf. OBERHOLSER, Proc. Acad. Nat. Sci. Phila. 1899, 207.
Nos. 438 and 439 will now stand as follows:

438. **Amizilis tzacatl** (DE LA LLAVE).

Trochilus tzacatl DE LA LLAVE, Registro Trimestre, II, 1833, 48.

Amizilis tzacatl RICHMOND, Auk, XVI, Oct. 1899, 324.

439. **Amizilis cerviniventris** (GOULD).

Amazilius cerviniventris GOULD, P. Z. S. 1856, 150.

Amizilis cerviniventris OBERHOLSER, Proc. Acad. Nat. Sci. Phila. 1899, 207.

- 458a. **Sayornis nigricans semiatra** (VIGORS).

Western Black Phoebe.

Muscicapa semiatra VIGORS, Zoöl. Beechey's Voyage, 1839, 17.

Sayornis nigricans semiatra NELSON, Auk, XVII, April, 1900, 125.

GEOG. DIST. — Pacific coast of the United States and Mexico, from Oregon to Colima, eastward to Arizona. *S. nigricans* thus becomes restricted in the United States to Texas, New Mexico, and southeastern Arizona (cf. NELSON, *l. c.*).

464.2. ***Empidonax insulicola*** OBERHOLSER.

Santa Barbara Flycatcher.

Empidonax insulicola OBERHOLSER, Auk, XIV, July, 1897, 300.

[B —, C —, R —, C —.]

GEOG. DIST. — Santa Barbara Islands, California.

478b. ***Cyanocitta stelleri macrolopha*** (BAIRD). This becomes

Cyanocitta stelleri diademata (BONAP.).

Cyanogarrulus diadematus BONAP. Consp. Av. I, 1850, 377.

Cyanocitta stelleri diademata RIDGW. Auk, XVI, July, 1899, 256, footnote.

483. ***Xanthoura luxuosa*** (LESS.). This becomes

Xanthoura luxuosa glaucescens RIDGW.

Xanthoura luxuosa glaucescens RIDGWAY, Auk, XVII, April, 1900, 28.

GEOG. DIST. — Lower Rio Grande Valley.

485a. ***Perisoreus obscurus griseus*** RIDGW.

Gray Jay.

Perisoreus obscurus griseus RIDGW. Auk, XVI, July, 1899, 255.

[B —, C —, R —, C —.]

GEOG. DIST. — British Columbia, Washington, Oregon, and northern California, east of the Coast and Cascade Ranges.

498a. **Agelaius phoeniceus longirostris** (SALVAD.). This becomes

Agelaius phoeniceus sonoriensis RIDGW.

No. 498a will stand as in the Check-List, 2d ed., p. 205. (Cf. NELSON, Auk, XVII, 1900, 125.) *Agelaius longirostris* is not positively identifiable, and in any case could hardly have come from western Mexico, as alleged.

544b. **Ammodramus rostratus halophilus** (MCGREGOR).

Lagoon Sparrow.

Ammodramus halophilus MCGREGOR, Auk, XV, July, 1898, 265.

Ammodramus rostratus halophilus A. O. U. COMM.

[B—, C—, R—, C—.]

GEOG. DIST. — Salt marshes in the vicinity of Abreojos Point, Lower California.

554a. **Zonotrichia leucophrys intermedia** RIDGW. This becomes

Zonotrichia leucophrys gambelii (NUTT.).

Fringilla gambelii NUTTALL, Man. I, 2d ed. 1840, 556.

Zonotrichia leucophrys gambelii COUES, Key, 1872, 556.

Cf. RIDGWAY, Auk, XVI, Jan. 1899, 36.

554b. **Zonotrichia leucophrys gambellii** (NUTT.). This becomes

Zonotrichia leucophrys nuttalli RIDGW.

Zonotrichia leucophrys nuttalli RIDGWAY, Auk, XVI, Jan. 1899, 36.

Cf. RIDGWAY, *l. c.*

581. **Melospiza fasciata** (GMEL.). This becomes

Melospiza melodia (WILSON).

The name *Fringilla fasciata* Gmelin (1788) given to the Song Sparrow, being preoccupied by *Fringilla fasciata* Müller (1776), given to the Pine Finch (cf. OBERHOLSER, Auk, XVI, 1899, 183) it becomes necessary to revert to the long familiar name of Wilson as the tenable specific designation of the Song Sparrow, which, with its subspecies, will stand as follows:

581. **Melospiza melodia** (WILSON).

Fringilla melodia WILSON, Am. Orn. II, 1810, 125, pl. xvi.

Melospiza melodia BAIRD, B. N. Am. 1858, 477.

- 581a. **Melospiza melodia fallax** (BAIRD).

Zonotrichia fallax BAIRD, Proc. Acad. Nat. Sci. Phil. 1854, 119.

Melospiza melodia var. *fallax* COUES, Key, 1872, 139.

- 581b. **Melospiza melodia montana** (HENSHAW).

Melospiza fasciata montana HENSHAW, Auk, I, July, 1884, 224.

Melospiza melodia montana OBERHOLSER, Auk, XVI, April, 1899, 183.

- 581c. **Melospiza melodia heermanni** (BAIRD).

Melospiza heermanni BAIRD, B. N. Am. 1858, 478.

Melospiza melodia var. *heermanni* COUES, Key, 1872, 139.

- 581d. **Melospiza melodia samuelis** (BAIRD).

Ammodramus samuelis BAIRD, B. N. Am. 1858, 455.

Melospiza melodia var. *samuelis* RIDGW. Hist. N. Am. Bds. II, 1874, 18.

581e. **Melospiza melodia morphna** OBERH.

Melospiza melodia morphna OBERHOLSER, Auk, XVI, April, 1899, 183. (= *Fringilla guttata* NUTTALL, 1840, preoccupied by *Fringilla guttata* VIEILLOT, 1817. Cf. OBERHOLSER, l. c.).

581f. **Melospiza melodia rufina** (BONAP.).

Passerella rufina BONAP. Consp. Av. I, July 15, 1850, 477.
Melospiza melodia var. *rufina* COUES, Key, 1872, 139.

581g. **Melospiza melodia rivularis** (BRYANT).

Melospiza fasciata rivularis BRYANT, Proc. Cal. Acad. Sci. 2d ser. I, Sept. 29, 1888, 197.
Melospiza melodia rivularis OBERHOLSER, Auk, XVI, April, 1899, 183.

581h. **Melospiza melodia graminea** (TOWNS.).

Melospiza fasciata graminea TOWNSEND, Proc. U. S. Nat. Mus. XIII, 1890, 139.
Melospiza melodia graminea OBERHOLSER, Auk, XVI, April, 1899, 183.

581i. **Melospiza melodia clementæ** (TOWNS.).

Melospiza fasciata clementæ TOWNSEND, Proc. U. S. Nat. Mus. XIII, 1890, 139.
Melospiza melodia clementæ OBERHOLSER, Auk, XVI, April, 1899, 183.

581j. **Melospiza melodia juddi** (BISHOP).

Melospiza fasciata juddi BISHOP, Auk, XIII, April, 1896, 132.
Melospiza melodia juddi A. O. U. COMM.

581k. **Melospiza melodia merrilli** (BREWST.).

Melospiza fasciata merrilli BREWSTER, Auk, XIII, Jan. 1896, 46.
Melospiza melodia merrilli A. O. U. COMM.

588d. **Pipilo maculatus atratus** RIDGW.

San Diego Towhee.

Pipilo maculatus atratus RIDGW. Auk, XVI, July, 1899, 254.

[B —, C —, R —, C —.]

GEOG. DIST. — Southern coast district of California, south of Sierra Fernando and Sierra San Gabriel, and south into Lower California.

591d. **Pipilo fuscus carolæ** MCGREGOR.

Northern Brown Towhee.

Pipilo fuscus carolæ MCGREGOR, Bull. Cooper Orn. Club, I, 1899, 11.

[B —, C —, R —, C —.]

GEOG. DIST. — Northwestern California.

656.1. **Dendroica nigrifrons** BREWSTER.

Black-fronted Warbler.

Dendroica nigrifrons BREWSTER, Auk, VI, April, 1899, 94.

[B —, C —, R —, C —.]

GEOG. DIST. — Sierra Madre of Chihuahua, Mexico, north to the Huachuca and Chiricahua Mountains, Arizona. (Cf. LOOMIS, Auk, XVIII, Jan. 1901, 109.)

681c. **Geothlypis trichas arizela** OBERH.

Geothlypis trichas arizela OBERHOLSER, Auk, XVI, July, 1899, 257.

[B 170 part, C 97 part, R 122 part, C 141 part.]

GEOG. DIST. — Pacific coast region, from southern British Columbia to northern Lower California, west of the Cascades and Sierra Nevada; in winter south to Cape St. Lucas and Tepic.

719c. **Thryomanes bewickii cryptus** OBERH.

Thryomanes bewickii cryptus OBERHOLSER, Proc. U. S. Nat. Mus. XXI, 1898, 425.

[B —, C 48a part, R 61b part, C 72 part.]

GEOG. DIST.—Texas, except the extreme western part, and probably north to Kansas, and south to Tamaulipas and Nuevo Leon, Mexico.

719d. **Thryomanes bewickii charienturus** OBERH.

Thryomanes bewickii charienturus OBERHOLSER, Proc. U. S. Nat. Mus. XXI, 1898, 435.

[B—, C—, R—, C—.]

GEOG. DIST.—Coast region of southern California, north to about Pasadena; south to about latitude 28°, Lower California; Santa Catalina Island, Cal.

719e. **Thryomanes bewickii calophonus** OBERH.

Thryomanes bewickii calophonus OBERHOLSER, Proc. U. S. Nat. Mus. XXI, 1898, 440.

[B—, C 48b part, R 61a part, C 73 part.]

GEOG. DIST.—Pacific slope, from Oregon to southern Vancouver Island and valley of Fraser River, British Columbia.

722b. **Anorthura hiemalis helleri** OSGOOD.

Kadiak Winter Wren.

Anorthura hiemalis helleri OSGOOD, Auk, XVIII, April, 1901, 181.

[B—, C—, R—, C—.]

GEOG. DIST.—Kadiak Island, Alaska.

723.1. **Anorthura meligera** OBERH.

Aleutian Wren.

Anorthura meligera OBERHOLSER, Auk, XVII, Jan., 1900, 25.

[B—, C—, R—, C—.]

GEOG. DIST.—The westernmost islands of the Aleutian group, Alaska.

726*d*. ***Certhia familiaris zelotes*** OSGOOD.

Sierra Creeper.

Certhia familiaris zelotes OSGOOD, Auk, XVIII, April, 1901,
182.

[B 275 part, C 42 part, R 55 part, C 62 part.]

GEOG. DIST. — Cascade Mountains of Oregon and the Sierra Nevada of California.

No. 726*c*, *Certhia f. occidentalis* RIDGW., thus becomes restricted to the Pacific coast region, from Sitka, Alaska, to Marin County, California.736. ***Certhia familiaris fusca*** (BARTON). This becomes***Certhia familiaris americanus*** (BONAP.), and will stand as in the Check-List, first and second editions. The change from *C. f. americana* to *C. f. fusca* in the Ninth Supplement proves to have been unwarranted. (Cf. OBERHOLSER, Auk, April, 1899, 185.)742*b*. ***Chamæa fasciata phæa*** OSGOOD.

Coast Wren-Tit.

Chamæa fasciata phæa OSGOOD, Proc. Biol. Soc. Wash. XIII,
1899, 41.

[B —, C —, R —, C —.]

GEOG. DIST. — Coast region of Oregon and California from Astoria, Oregon, to Marin County, California.

749*a*. ***Regulus calendula grinnelli*** W. PALMER.

Sitkan Kinglet.

Regulus calendula grinnelli W. PALMER, Auk, XIV, 1897,
399.

[B —, C —, R —, C —.]

GEOG. DIST. — Sitka district, Alaska.

758c. ***Hylocichla ustulata almæ*** OBERH.

Alma's Thrush.

Hylocichla ustulata almæ OBERHOLSER, Auk, XV, Oct. 1898,
304.

[B —, C —, R —, C —.]

GEOG. DIST. — Yukon Basin, south to the Rocky Mountain
region, and west to Utah and eastern Nevada.

761b. ***Merula migratoria achrustera*** BATCHELDER.

Southern Robin.

Merula migratoria achrustera BATCHELDER, Proc. N. Engl.
Zööl. Club, I, 1900, 104.

[B 155 *part*, C 1 *part*, R 7 *part*, C 1 *part*.]

GEOG. DIST. — The Carolinas and Georgia.

765a. ***Saxicola œnanthe leucorhoa*** (GMEL.).

Greenland Wheatear.

Motacilla leucorhoa GMEL. S. N. I, ii, 1788, 966.

Saxicola œnanthe leucorhoa STEJNEGER, Proc. U. S. Nat.
Mus. XXIII, No. 1220, 1901, 476.

[B 157 *part*, C 15 *part*, R 21 *part*, C 26 *part*.]

GEOG. DIST. — Greenland, adjacent portions of North America,
and Iceland, migrating, by way of the British Islands and
France, to western Africa.

The North American range of *S. œnanthe* is thus restricted to
Alaska. (Cf. STEJNEGER, *l. c.*, and Auk, XVIII, April, 1901,
187.)

II. PROPOSED CHANGES IN NOMENCLATURE NOT
ACCEPTED.

Gavia FORSTER, 1788, vs. *Gavia* S. G. Gmelin, 1770 (Ninth
Supplement, Auk, XVI, 1899, p. 98. Cf. REICHENOW, Orn.
Monatsb. VIII, Sept. 1900, 135).

S. G. Gmelin used the generic name *Larus* for the Gulls throughout his work (Reise Russl.) and evidently did not introduce *Gavia* (l.c. I, 1770, 152) in a nomenclatural sense, but merely cited *Gavia ridibunda phaenicopos* as the name under which Brisson described the bird then under comment. (Cf. ALLEN, Auk, XVIII, July, 1901, —.) *Gavia* will thus stand as used in the Ninth Supplement.

40a. ***Rissa tridactyla pollicaris*** vs. *Rissa tridactyla* (cf. SAUNDERS, Cat. Bds. Br. Mus. XXV, 1896, 305).

The two forms are considered as fairly entitled to recognition. (Cf. CHAPMAN, Bull. Am. Mus. Nat. Hist. XII, 1899, 227.)

159. ***Somateria mollissima borealis*** vs. *Somateria mollissima* (cf. ELLIOT, Wild Fowl, 1898, 294).

The status of the two forms is retained as in the Check-List. (Cf. CHAPMAN, Bull. Am. Mus. Nat. Hist. XII, 1899, 235.)

258. ***Symphemia semipalmata inornata*** vs. *Symphemia s. speculifera* (cf. ELLIOT, Auk, XVI, 1899, 230).

The name *speculifera* Pucheran is considered as not satisfactorily identifiable.

310a. ***Meleagris gallopavo fera*** vs. *Meleagris fera* (cf. ELLIOT, Auk, XVI, July, 1899, 232).

310b. ***Meleagris gallopavo osceola*** vs. *Meleagris fera osceola* (cf. ELLIOT, *ibid.* 232).

310c. ***Meleagris gallopavo intermedia*** vs. *Meleagris intermedia* (cf. ELLIOT, *ibid.* 232).

The Committee fails to recognize the necessity of making any change in the names of the subspecies of *Meleagris*. (Cf. Ninth Supplement, Auk, XVI, 1899, p. 108.)

385. ***Geococcyx californianus*** vs. *G. mexicanus* (GMEL.). (Cf. SHARPE, Hand List Bds. II, 1900, 174.)

Phasianus mexicanus GMELIN relates to *Geococcyx affinis*, and not to *G. californianus*.

501b. ***Sturnella magna neglecta*** vs. *Sturnella ludoviciana* (cf.

BANGS, PROC. N. ENGL. ZOÖL. CLUB, I, 1899, 20).

The description by Brisson, on which *Sturnus ludoviciana* Linn. is based, does not satisfactorily apply to *S. m. neglecta*, aside from the improbability of Brisson having specimens at that early date collected within the range of *neglecta*. The attempt to revive the name from Swainson is contrary to current usage in similar cases.

***Quiscalus* VIEILL.** (1816) vs. *Scaphidura* SWAINS. (1827).

(Cf. RIDGWAY, PROC. WASH. ACAD. SCI. III, 1901, 151).

Scaphidurus was proposed as a substitute for *Quiscalus*, which was erroneously supposed to be preoccupied in botany, and is consequently a pure synonym of *Quiscalus*. *Scaphidurus* as reinstated by Ridgway (*l. c.*) = *Megaquiscalus* Cassin.

519. ***Carpodacus mexicanus frontalis*** vs. *C. m. obscurus* (cf. OBERHOLSER, Auk, XVI, 1899, 186).

As *Fringilla frontalis* Vieillot, 1817, is simply the reference of *Loxia frontalis* Lath. to the genus *Fringilla*, and not a new name, *Fringilla frontalis* Say, 1824, is obviously not invalidated.

534a. ***Passerina nivalis townsendi*** vs. *Passerina townsendi* (cf. W. PALMER, Fur Seals and Fur Seal Islands N. Pac. Oc. III, 1899, 423; GRINNELL, Condor, III, 1901, 20.)

The proposed change is not deemed necessary.

719.1. ***Thryomanes leucophrys*** vs. *Thryomanes bewickii leucophrys* (cf. OBERHOLSER, PROC. U. S. NAT. MUS. XXI, 1898, 443.)

The reasons given for the proposed change are not considered satisfactory.

725b. ***Cistothorus palustris griseus*** BREWSTER vs. *Cistothorus griseus* (cf. WAYNE, Auk, XVI, Oct. 1899, 362).

The proposed change is deemed inadvisable at present.

III. SPECIES AND SUBSPECIES NOT ACCEPTED.

Fulmarus glacialis columba ANTHONY, Auk, XII, Oct. 1895, 372. Considered as not separable from *Fulmarus rogersi*.

Alopochen ægyptiacus (LINN.). = *Chenalopex ægyptiacus* auct.
Cf. KIRKWOOD, Auk, XVII, Jan. 1900, 64.

Examples of this species are so often brought to this country alive that it seems unwise to admit the species to the Check-List as an Old World straggler, the probabilities being that the few specimens of apparently wild birds thus far taken have escaped from aviaries.

Asio accipitrinus mcilhennyi STONE, Proc. Acad. Nat. Sci. Phila. 1899, 478.

Considered as merely the pale phase of *A. accipitrinus*, of wide and irregular distribution, but liable to occur anywhere, and by no means rare on the Atlantic coast.

Picoides americanus bacatus BANGS, Auk, XVII, April, 1900, 136.

Regarded as a synonym of *Picoides americanus* Brehm, which is taken in the same sense as heretofore in the Check-List.

Picoides americanus labradorius BANGS, Auk, XVII, April 1900, 138.

Considered as not separable from *Picoides americanus* Brehm.

Sayornis saya yukonensis BISHOP, Auk, XVII, April, 1900, 115.

The differences claimed are considered too slight and inconsistent for recognition in nomenclature.

Cyanocitta stelleri carbonacea GRINNELL, Condor, II, 1900, 127.

Not considered worthy of recognition by name.

Aphelocoma californica immanis GRINNELL, Auk, XVIII, April, 1901, 188.

Differences too slight to warrant recognition in nomenclature.

Leucosticte kadiaka MCGREGOR, Condor, III, 1901, 8. Separates issued Nov. 25, 1900.

Considered not separable from *Leucosticte griseonucha*.

Acanthis cannabina (LINN.). Cf. THAYER, Auk, XVII, Oct. 1900, 388.

The specimen here recorded was doubtless an escaped cage-bird.

Amphispiza belli clementæ RIDGWAY, Auk, XV, July, 1898, 230.

Not satisfactorily distinguishable from *A. belli*.

Zamelodia melanocephala microrhyncha GRINNELL, Condor, II, 1900, 128.

Alleged characters too slight to require recognition in nomenclature.

Pipilo maculatus falcifer MCGREGOR, Condor, II, 1900, 43.

Not separable from *Pipilo maculatus atratus* RIDGW.

Hirundo erythrogastra unalaschkensis (GMEL.). Cf. W. PALMER, Fur Seals and Fur Seal Isl. N. Pac. Oc. III, 1899, 422.

Not separable from *H. erythrogastra*. As to the name *Hirundo unalaschkensis* Gmelin, cf. ALLEN, Auk, XVIII, April, 1901, 177.

Lanius borealis invictus GRINNELL, Pac. Coast Avifauna, I, 1900, 54.

Characters too slight and inconstant for recognition in nomenclature.

Dendroica coronata hooveri MCGREGOR, Bull. Cooper Orn. Club, I, 1899, 31.

The alleged differences are too slight and inconstant.

Thryomanes bewickii eremophilus OBERHOLSER, Proc. U. S. Nat. Mus. XXI, 1898, 427.

Not distinguishable from *Thryomanes bewickii bairdi*.

Thryomanes bewickii drymæcus OBERHOLSER, Proc. U. S. Nat. Mus. XXI, 1898, 437.

Not separable from *Thryomanes b. spilurus*.

Thryomanes bewickii nesophilus OBERHOLSER, Proc. U. S. Nat. Mus. XXI, 1898, 442.

Not separable from *Thryomanes b. spilurus*.

Thryothorus cerroensis ANTHONY, Auk, XIV, April, 1897, 166.

Not separable from *Thryomanes leucophrys*.

Parus gambeli thayeri BIRTWELL, Auk, XVIII, April, 1901, 166.

Based on specimens of *Parus gambeli* stained by contact with tree trunks blackened by fire.

Parus rufescens barlowi GRINNELL, Condor, II, 1900, 127.
A synonym of *Parus rufescens neglectus*.

Hylocichla fuscescens fuliginosa HOWE, Auk, XVII, July, 1900, 270.

Considered as a synonym of *H. f. salicicola*.

IV. DEFERRED FOR FURTHER INVESTIGATION.

The names printed in heavy-faced type are already in the Check-List.

Many of the following cases were deferred on account of lack of material for their proper consideration; others involve questions of nomenclature as well as ornithology that require careful consideration.

Cyclorrhynchus vs. *Phaleris* (cf. GRANT, Cat. Bds. Br. Mus. XXVI, 1898, 607.

51a. **Larus argentatus smithsonianus** vs. *L. argentatus* (cf. KNIGHT, Auk, XVII, 1900, 63; DWIGHT, *ibid.* XVIII, 1901, 58-61).

It seems desirable to examine a large number of European specimens before deciding the case.

- 86a. **Fulmarus glacialis minor** vs. *Fulmarus glacialis* (cf. SALVIN, Cat. Bds. Brit. Mus. XXV, 1896, 426; CHAPMAN, Bull. Am. Mus. Nat. Hist. XII, 1899, 229).
94. **Puffinus stricklandi** vs. *Puffinus griseus* (cf. SALVIN, Cat. Bds. Br. Mus. XXV, 1896, 386).
120. **Phalacrocorax dilophus** vs. *Phalacrocorax auritus* (cf. GRANT, Cat. Bds. Br. Mus. XXVI, 1898, 373).
121. **Phalacrocorax mexicanus** vs. *Phalacrocorax vigua mexicanus* (cf. GRANT, l. c. 378-383.)
- 123a, 123b. **Phalacrocorax pelagicus robustus et resplendens** vs. *Phalacrocorax pelagicus* (cf. GRANT, l. c. 361).
124. **Phalacrocorax urile** vs. *Phalacrocorax bicristatus* (cf. GRANT, l. c. 358).
127. **Pelecanus californicus** vs. *Pelecanus fuscus californicus* (cf. GRANT, Cat. Bds. Br. Mus. XXVI, 1898, 478).
- Olor** vs. *Cygnus* (cf. ELLIOT, Auk, XVI, July, 1899, 226-229).
193. **Ardea wardi** vs. *A. herodias wardi* (cf. CHAPMAN, Bull. Am. Mus. Nat. Hist. XIV, 1901, 88).
211. **Rallus crepitans** vs. *Rallus longirostris crepitans* (cf. RIDGWAY, Man. N. Am. Bds. 1896, 137, 587).
- 211a. **Rallus crepitans saturatus** vs. *Rallus longirostris saturatus* (cf. RIDGWAY, l. c.).
- 211.1. **Rallus scottii** vs. *Rallus longirostris scottii* (cf. RIDGWAY, l. c. 587).
- Rallus levipes* BANGS. Bull. N. Engl. Zool. Club, I, 1899, 45.

- 216.1. **Porzana coturniculus** (cf. McLAIN, Bull. Cooper Orn. Club, I, 1899, 99).

Specimens recently received from California, but not yet critically determined, seem to indicate that it would be premature to take the action proposed, namely, to remove the species from the Check-List.

- [230.1.] **Gallinago major** (GMEL.) vs. *Gallinago media* (cf. OBERHOLSER, Auk, XVI, 1899, 179).

The name *media* from either Frisch or Gerini is clearly not tenable, these authors being not consistently binominal.

323. **Macrorhamphus scolopaceus** vs. *Macrorhamphus griseus scolopaceus* (cf. HOWE, Auk, XIII, April, 1901, 161).

- 277a. **Ægialitis meloda circumcincta** vs. *Æ. meloda*.

Again deferred, the case not having been reinvestigated, through oversight.

287. **Hæmatopus bachmani** vs. *H. niger* (PALLAS). (Cf. SHARPE, Hand-List Bds. I, 1899, 147.)

Meleagris gallopavo merriami NELSON, Auk, XVII, April, 1900, 120.

317. **Zenaida zenaida** vs. *Zenaida meridionalis* (cf. FORBES & ROBINSON, Bull. Liverpool Mus. I, 1899, 36).

358. **Falco richardsoni** vs. *Falco columbarius richardsoni* (cf. BISHOP, N. Am. Fauna, No. 19, 1900, 75).

Strigidæ vs. *Aluconidæ* (cf. COUES, Auk, XVII, Jan. 1900, 65).

Strix vs. *Aluco* (cf. COUES, l. c.).

377. **Surnia ulula** vs. *Surnia ulula doliata* (PALL.). Cf. SHARPE, Hand-List Bds. I, 1899, 296.

Picoides arcticus tenuirostris BANGS, Auk, XVII, April, 1900, 131.

Antrostomus vs. *Caprimulgus* (cf. CLARK, Auk, XVIII, April, 1901, 169).

450. **Myiozetetes texensis** vs. *Myiozetetes similis texensis* (cf. NELSON, Auk, XVII, April, 1900, 124.

Contopus CAB. vs. *Horizopus* OBERH. (cf. OBERHOLSER, Auk, XVI, Oct. 1899, 331).

Contopus richardsonii saturatus BISHOP, Auk, XVII, April, 1900, 116.

Agelaius phœniceus fortis RIDGWAY, Proc. Wash. Acad. Sci. III, 1901, 153.

Agelaius phœniceus neutralis RIDGWAY, *ibid.*

Agelaius phœniceus caurinus RIDGWAY, *ibid.*

501a. **Sturnella magna neglecta** vs. *Sturnella neglecta* (cf. OBERHOLSER, Proc. U. S. Nat. Mus. XXII, 1900, 231; CHAPMAN, Bull. Am. Mus. Nat. Hist. XIII, 1900, 297-320).

501a. **Sturnella magna hoopesi** STONE, vs. *Sturnella magna mexicana* (cf. CHAPMAN, Bull. Am. Mus. Nat. Hist. XIII, 1900, 298, 303).

Sturnella magna argutula BANGS, Proc. N. Engl. Zool. Club, I, 1899, 20.

Icterus cucullatus sennetti RIDGWAY, Proc. Wash. Acad. Sci. III, 1901, 152.

Loxia curvirostra bendirei (RIDGWAY). Cf. MERRIAM, N. Am. Fauna, No. 16, 1899, 123.

- 514a. **Amphispiza belli nevadensis** vs. *A. nevadensis* (cf. GRINNELL, Auk, XV, 1898, 59; FISHER, *ibid.* 190).

Melospiza fasciata caurina RIDGWAY, Auk, XVI, Jan. 1899, 36.

Melospiza fasciata cooperi RIDGWAY, *ibid.* 35.

Melospiza fasciata pusillula RIDGWAY, *ibid.* 35.

Melospiza fasciata ingersolli MCGREGOR, Bull. Cooper Orn. Club, I, 1899, 35.

Melospiza melodia cleonensis MCGREGOR, *ibid.* 87.

Melospiza melodia kenaiensis RIDGWAY, Auk, XVII, Jan., 1900, 29.

Melospiza sanaka MCGREGOR, Condor, III, Jan. 1901, 87. (Separates issued Nov. 25, 1900).

Passerella iliaca fuliginosa RIDGWAY, Auk, XVI, Jan. 1899, 36.

Passerella iliaca annectens RIDGWAY, Auk, XVII, Jan. 1900, 30.

Passerella iliaca insularis RIDGWAY, *ibid.* 30.

Passerella iliaca townsendi RIDGWAY, *ibid.* 30.

612. **Petrochelidon lunifrons** SAY vs. *P. pyrrhonota* (VIEILL.). (Cf. SHARPE & WYATT, Mon. Hirun. II, 523, *et. seq.*).

Lanius ludovicianus migrans W. PALMER, Auk, XV, July, 1898, 248.

While the form appears entitled to recognition there are questions of synonymy in the case which are likely to affect the name.

Geothlypis trichas brachidactyla (SWAINS.), W. PALMER, Auk, XVII, July, 1900, 221.

- 681b. **Geothlypis trichas ignota** vs. *G. t. roscoe*. (Cf. W. PALMER, Auk, XVII, July, 1900, 221; CHAPMAN, *ibid.* 389; PALMER and CHAPMAN, *ibid.* XVIII, April, 1901, 197, 198.)

Salpinctes obsoletus pulverius GRINNELL, Auk, XV, 1898, 238.

740a. **Parus hudsonicus stoneyi** vs. *Parus h. evura* (cf. GRINNELL, Pac. Coast Avifauna, I, 1900, 60).

Parus hudsonicus evura COUES. (Cf. BISHOP, Auk, XVII, April, 1900, 118.)

Chamaea fasciata intermedia GRINNELL, Condor, II, 1900, 86.

742a. **Chamaea fasciata henshawi** vs. *C. fasciata*. (Cf. OSGOOD, Proc. Biol. Soc. Wash. XIII, 1899, 41.)

Hylocichla aonalaschkæ verecunda OSGOOD, Auk, XVIII, April, 1901, 183.

Hesperocichla nævia meruloides (SWAINS.). (Cf. GRINNELL, Auk, XVIII, April, 1901, 142.)

In addition to the above, action was deferred in reference to the following generic and subgeneric names, most of which are in the Check-List as representing subgeneric groups. Many of them should doubtless be raised to generic rank, but it seems desirable to defer the matter till the whole list can be more carefully considered than was possible at the recent sessions of the Committee.

Actodromas Kaup.

Ægialeus Reichenb.

Ancylocheilus Kaup.

Aristonetta Baird.

Arquatella Baird.

Astur Lacép.

Asyndesmus Coues.

Buteola Bonap.

Butorides Blyth.

Centurus Swains.

Charitonetta Stejn.

Chroicocephalus Eyton.

Coturniculus Bonap.

Cymochorea Coues.

Dichromanassa Ridgw.

Dytes Kaup.

Eudomychura Oberh. (= *Micruria* Grant).

Exanthemops Elliot.

Florida Baird.

Fuligula Steph.

Herodias Boie.

Hesperiphona Bonap.

Heteropygia Coues.

Hierofalco Cuvier.

Hydranassa Baird.

Hydrocoleus <i>Kaup.</i>	Passerculus <i>Bonap.</i>
Iridoprocne <i>Coues.</i>	Pelidna <i>Cuvier.</i>
Limonites <i>Sharpe.</i>	Phæbetria <i>Reichenb.</i>
Lophophanes <i>Kaup.</i>	Picicorvus <i>Bonap.</i>
Nuttallornis <i>Ridgw.</i>	Podasocys <i>Coues.</i>
Nyctanassa <i>Reichenb.</i>	Proctopus <i>Kaup.</i>
Ochthodromus <i>Reichenb.</i>	Pseuduria <i>Sharpe.</i>
Ortygops <i>Heine.</i>	Psiloscops <i>Coues.</i>
Oxyechus <i>Reichenb.</i>	Tachytiorchis <i>Kaup.</i>
Pallasicarbo <i>Coues.</i>	Telmatodytes <i>Cab.</i>

ERRATA.

Check-List, 2d ed., p. 34, No. 99, in the reference "Auk, III, July 1886, 300," for 300 read 390.

Ninth Supplement, Auk, XVI, 1899, p. 125. The second reference under 722a should be

Anorthura hiemalis pacifica RIDGW. Proc. U. S. Nat. Mus. VI, 1883, 94.

Ninth Supplement, Auk, XVI, 1899, 111. Insert above No. 435 the following:

GENUS **ATTHIS** REICH.

Atthis REICHENBACH, Aufz. der Colib. 1853, 12. Type, *Ornysmia heloisa* LESS. & DE LATTRE.